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## ORIGINAL LECTURES.

### MULTIPLE CEREBRO-SPINAL SCLEROSIS.

*A Clinical Lecture delivered at the Hospital of the Good Samaritan, Cincinnati, March 10, 1882.*

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(Reported by J. M. FRENCH, M.D., Assistant to the Chair of Practice.)

GENTLEMEN: We have to-day to study a rare case of organic disease of the nervous system. It is not a new disease that I show you here, but a disease of new recognition; a disease, the separation of which from other somewhat similar maladies, has put upon permanent record, and has contributed most to distinguish in neuropathology the name of the French physician, J. M. Charcot. For although his *sclerose en plaques* or *disseminées* had been seen by many older clinicians, it was always confounded with other affections, some of like, some of grossly unlike, nature, until his work upon it gave us a distinct differential diagnosis at the bedside, and a distinct lesion at the autopsy.

So multiple cerebro-spinal sclerosis held about the same relation to paralysis—"shaking palsy" it was often called—as arthritis deformans to rheumatism; palsy, like rheumatism, was a convenient cover for a multitude of diseases; and just as out from under "rheumatism" have been taken acute polyarthritis, the chronic or monarticular, the muscular, gonorrhoeal, and nodular forms, the various neuralgias, trichinosis, etc., have been uncovered and separated from palsy, cerebral hæmorrhages, thrombi, and emboli, paralysis agitans, progressive paralysis, muscular atrophy, in fact pretty much all the neuroses, including the scleroses, one rare form of which we have to observe and study to-day.

Sclerosis is, as you know, a comparatively new term in medicine. The old pathologists called the lesion a cirrhosis, a name which Laennec first gave to the induration of the liver. But sclerosis is a better word, because it means induration, whereas cirrhosis means only a yellow coloration. But the pathological process is the same under the old or the new name, and is the same whether we see it in the liver, the kidney, or the brain; it is everywhere a hyperplasia of the connective tissue, and is the type or representative of a chronic interstitial change.

You are, however, not to think when you hear the word sclerosis of a mere hypertrophy of existent connective tissue elements, or of the development of new connective tissue fibrils out of connective tissue corpuscles alone. You are to know that there is strong ground for believing that emigrated white blood corpuscles may also be transformed into connective tissue cells and fibres, and thus show a later stage or phase of a common inflammation.

When nerve-tissue suffers this sclerotic change, the disease-process shows itself in various ways. We know it best and see it oftenest, extending throughout whole columns of the spinal cord, as in locomotor ataxia, or in lateral sclerosis. The French pathologists speak of this process as a sclerosis in stripes or streaks. But I think we may find a better term, for a stripe or streak implies a mere surface change. I propose to borrow a word from the obstetricians, and call it a funicular or

cord sclerosis. Sometimes, again, it picks upon or affects the anterior horns of gray matter, to give us the familiar symptoms of progressive muscular atrophy, or of infantile paralysis; sometimes it attacks or progressively invades the whole nervous system, as in dementia paralytica, or a great mass of it, a whole hemisphere for instance, a *sclerose en bloc*, as in the so-called diffused form of the disease; or is strictly confined to a limited region, as in unilateral facial atrophy, or in glosso-labio-laryngeal paralysis. Diabetes mellitus is believed by some of our best pathologists to be due to similar change, closely circumscribed about the origin of the pneumogastric nerve.

On the other hand, sclerosis sometimes appears in islets scattered here and there throughout the brain or cord, or both, to constitute the multiple cerebral, or spinal, or both, the multiple cerebro-spinal sclerosis, a case of which it is our fortune to see to-day. How we shall know this disease-process from the rest, how we shall be able to separate it from a common chorea, or a paralysis agitans, the diseases with which it is oftenest confounded, we shall learn in the observation of this case. For the main features of the disease in this case are so pronounced as to make the recognition of it easy.

Here is now a big, strong-looking man, who stands six feet, easy, as they say, in his shoes, who weighs one hundred and sixty pounds, a man with the build of a young Hercules originally, and yet, as you see, he cannot, with all his muscles, hold himself still; in fact, the more he tries to do it, the more violent his agitation becomes. We seat him in this large chair, and now his head begins to move backwards and forwards, quite rhythmically, you observe, but more and more violently; the face flushes, his eyes show that his brain reels: the sight of such distress is painful; we seize his head with both hands, and hold it to give him rest. You notice now that there is some twitching of the fingers, some jerking of the arms; occasionally his foot stamps upon the floor; notice, also, that his face flushes quickly, that his expression is listless, that the tongue is protruded slowly and somewhat tremulously, but without deflection to the right or left.

Now we will hear him talk, and you will pay attention not so much to what he says, for we will have Dr. French read for us the points in his history he has taken so much pains to compile, but to the manner of his saying it.

"What is your profession?"

"I am at-tor-ney at law."

"How long have you practised law?"

"I have not prac-tised it at all I on-ly be-gan to prac-tise when I was tak'n sick."

"What, in your opinion, was the cause of your trouble?"

"I know noth-ing to cause it."

"Could you drink from that glass of water on the table?"

"I would not like to try it; I would spill it on myself."

This is enough. You notice the slow, drawing, monotonous speech, the disarticulation of words into syllables, an enunciation which must remind you of the days of school-life, in the process of scanning the Latin poets. Some fine observer has said that these patients talk like little children just learning to read.

Having seen, now, all the gross phenomena of this disease, we will stop for a while to hear the history of

this case, as prepared with great conscientiousness and, as I have asked him, with special reference to a possible cause, by our assistant, Dr. French:

E. J. G., attorney-at-law, twenty-six years of age, unmarried; is a native and resident of Cincinnati, but of Irish descent. In his family history, there is nothing of interest, except a direct line of phthisis on the paternal side; the father, and nearly all of his family, having died of that disease. No trace of nervous disease or specific taint can be discovered on either side of the house. The mother is living, and in perfect health. The patient is the third and only surviving child. The others, five in number—four boys and one girl—all died before attaining the age of three years. The first child lived the longest, the last, the shortest time. Of the causes of their deaths, it is only known that one died of phthisis, one from malnutrition, during an illness of the mother, and one lived but a few hours after birth.

The patient, though he appeared rugged, was never strong. He is tall and slender, and was always round-shouldered, and had a slight cough. He has, however, had no decided illness but measles and whooping-cough. He has always been temperate in his habits. He disclaims all possibility of ever having contracted syphilis. A cautious but persistent cross-examination, however, elicited, in this connection, the following facts: He has had gonorrhœa. He never had a chancre; but he admits that, about four years ago (his memory of dates is poor), he had, on two separate occasions, a cluster of warts upon the glans penis, which were removed by caustic applications. He denies the existence then, or previously, of any sore at this point, though the description he gives of them corresponds to condylomata surrounding a chancre. Not far from the time of these warts there occurred, on the inner aspect of the left arm, a little distance above the elbow—evidently at the location of the epitrochlear gland—a very painful swelling, that went on to suppuration, ruptured, and healed rapidly. A similar swelling occurred at a corresponding point on the right arm, but subsided without suppuration. He had, also, almost at the same time, an abscess in the right groin, that was poulticed, and evacuated by incision. He positively denies having ever had any eruption upon his skin, except at two points, one on each leg, at unequal distances below the knee. The cicatrices left by them resemble those of a successful vaccination, with the exception that they are studded with small pigmented spots. There are numerous small pigmentary spots over the surface of his body. He has never had a sore throat, never lost his hair, has had no disease of the eyes, and never suffered from rheumatism, until during the present winter, when he has had slight pains in the tibial regions.

The earliest symptoms of his present illness were observed about five years ago, soon after he was admitted to the bar. He was then reprimanded by his preceptor for carelessness in his penmanship. Although he thought little of it at the time, he could but notice that his writing was becoming illegible; even more so than the average legal hand. With this he felt an aversion to the use of the pen, which increased, until he finally employed an amanuensis. About this time, too, he was highly insulted by a colleague asking him if he had not St. Vitus's dance, because, as he stated, his head was so unsteady when he walked. It was not long after that he noticed a sensation in the back of his neck, as if his head were not set straight. Then there was the pain, as of a cramp in the occipital region. About three months later—two years and three months ago—his hands became tremulous. About one year ago his legs became affected, and in the last six months the tremor has reached his jaws and tongue.

At present there is scarcely a voluntary muscle in his body, except those of the face, that is not affected, and

the choreic movements are at times most violent. In order to remain quiet he must sit in a large chair, his head well supported, his feet elevated, and his hands in some way confined. Once this position is broken, or upon the least excitement or effort of volition, his head is tossed about violently, his hands break into convulsive movements, and his legs make several plunges. His will seems to have no other control over the movements than that it can guide his head and limbs into the positions least favoring the attacks. The jaw is always in motion when the teeth are not set. The tongue is very slightly affected. When his eyes are at rest, there is a slight internal deviation of the right. This is of recent date. He has never had nystagmus. The patient can walk, but with some difficulty. He talks slowly, drawing out his words monotonously. His mental faculties seem unimpaired, unless his faulty memory of names and dates be of recent acquirement. During sleep all movements subside. He has a good appetite, and sleeps well. He has taken a large number of drugs, among which he can name potassium bromide, assafetida, valerian, nux vomica, and the various metals, none of which, as administered, had any influence on the disease.

Let us now consider the points in this disease as illustrated in this particular case.

Our patient is a professional man, aged twenty-six. There is nothing in his avocation that has any bearing upon the genesis of the disease, as the subjects of it come indiscriminately from every kind of calling. That most of them belong to the working class, is to be explained by the fact that most people belong to this class. True, the working class is most exposed to "cold," and for a cause of many cases of sclerosis we have still to take refuge under "cold," but exposure and attack are very different things. Statistics show us that they who are exposed most suffer least. People who live in a house climate contract more "colds" than those who live outdoors. The eloquence of figures in this regard is shown in the statement of Geigel, of Würzburg, that more legitimate than illegitimate children die of respiratory diseases in the first year of life. But we must not forget that the working classes in cities spend most of their lives in the worst kind of house climate, in factories and shops.

The subject of "cold" has a new etiologic interest since the discovery of Rossbach that the normal parasites of the animal body, present only in innocuous numbers, may be multiplied, even within one hour, to the point of danger, after the introduction into the body of substances or agents, like papayotin, entirely free of organisms of any kind. Perhaps we shall find in the process of "catching cold" some such explanation of its varied effects, and shall thus be relieved of the necessity of seeking shelter under the "*locus minoris resistentiæ*," the exile of refugees.

Aged twenty-six. Multiple sclerosis, for the most part, attacks the period of the vigor of life. From twenty to forty is the classical time for the first manifestation of this disease. For this reason alone the disease is known not to be associated with the degenerative changes of senescence, but is rather to be allied to infectious disease, as perhaps one of its remote effects. And we have here, also, an important point in differential diagnosis. For the two diseases with which we are most likely to confound it, paralysis agitans and chorea, attack by preference the extremes of life; paralysis agitans rarely appearing before fifty, and chorea before twenty. At the same time it must be admitted that cases of insular or multiple sclerosis do exceptionally occur both early and late in life. Thus, Leube records a case at the age of seven, and Strümpel a case at the age of seventy-nine.

Women, much oftener than men, are attacked by this



disease. In fact we are justified in saying, from statistics, that up to the present time three-fourths of all the cases belong to the female sex. Such a striking preference of sex is, of course, a very significant etiological fact. It points to the role of the emotions, as either the predisposing or exciting cause in the production of the disease. In this connection there has recently been made a curious statement, of much interest concerning dementia paralytica, a disease which shows somewhat similar, though much more diffuse, lesions in the brain. Dr. Grieve, of the asylum in British Guiana, observes, with astonishment at first, that this disease, which constitutes such a large contingent of cases in the asylums of Europe, is, in his institution, hardly represented at all, and he discovers, as the only possible explanation of its absence, the mental stagnation of the people. This observation is in support of an opinion previously expressed by Crichton Browne, to the effect that the lesions of this disease represent a later stage of a cortical hyperæmia exalted beyond the physiological limits by intense or continuous mental excitement or emotion.

But neither "cold" nor emotional disturbance are admitted, or could be accepted, as the probable cause of the disease in this case.

Notwithstanding his protestations, it is difficult not to believe that our patient has had syphilis. Enlarged lymphatics, cutaneous cicatrices, tibial pains, constitute a train of symptoms that may hardly be attributed to any other cause. We are led to fix upon this view all the more earnestly because of the absence of any other discoverable cause, and we might say more eagerly because it may offer some, however slight, hope of relief. Syphilis is the type of the slow blood poisons, the most familiar of all in its immediate and remote effects. Prominent among these latter is a well-known, we might say the best known of all the scleroses, locomotor ataxia, five-sixths of the cases of which are due to this cause. And while it would not be wise to declare syphilis as the absolute cause of this case, it would be unwise to ignore it as the probable cause. For diseases no more than parasites spring up spontaneously in the body of man.

A disinclination, dependent upon a manifest inability, to the use of the pen, was the first signal of the approach of the disease in this case. We always dislike to do, and, finally, refrain from doing, what we cannot do to our own or to others' satisfaction. In other words, the disease began here with a paresis of the upper extremity. There was forming at this time an islet of sclerosis in the cervical cord. There soon followed a peculiar sensation in the back of the neck, "as if his head were not set straight," and soon thereafter an unsteadiness of gait, simulating chorea. Scattered islets were now developing along the antero-lateral columns of the cord. In three months began the characteristic symptom, tremor of the hands, and this tremor gradually invaded all the muscles, until now it is almost universal.

But not every case of multiple sclerosis begins with tremor. Indeed, a few cases never show it at all. You can easily see that the symptoms of inception, of any stage, or of the whole course of the disease, will vary according to the seat of the lesion in the brain or cord. Some cases begin with epilepsy, some with apoplexy, some with pain, some with disturbance of special sense, some with derangement of the mind. Shift the lesions and the symptoms shift. We may say of the clinical history of the multiple sclerosis that it is kaleidoscopic. But tremor is a marked and most characteristic sign of the disease. Until tremor shows itself the diagnosis is uncertain, and upon the peculiarity of it we make our differential diagnosis.

The tremor of this disease is very different from that of chorea. The truth is, there is no tremor in true

chorea. The movements of chorea are convulsive; they are irregular, bizarre, fantastic. But the tremor of multiple sclerosis is rhythmic, it is in the line of muscular contraction, and above all things it is only present under effort. A patient with well-marked chorea can hardly seize the glass of water, and, having seized it, throws its contents right and left, or over his head. A patient with sclerosis can take hold of it and carry it tremulously to his lips, where it will clatter against his teeth.

The tremor of this disease is very different, also, from that of paralysis agitans, or true shaking palsy. We should not look for paralysis agitans in a patient so young, as it shows itself rarely before fifty. Moreover, it is constant, is confined for the most part to the head or hands, and is not associated with the manifold other symptoms of multiple sclerosis. The tremor of paralysis agitans is often checked by effort. Indeed, some of these patients must keep up continuous volitional motion to secure relief and rest.

Two years our patient has had this disease, and he may have it ten. The duration of it will depend upon the situation of the sclerotic patches, or upon the rapidity of their dissemination.

We shall put him at once upon the so-called specific treatment, and to avoid salivation we will give him the combination of the bichloride of mercury with the iodide of potassium, that we may keep him gently under their influence for a long time. There is not much hope of relief; I may say this freely, now that our patient is dismissed; because the damage has been already done. He approved of the trial of the treatment himself with the facetious remark—all the more facetious because of his mode of utterance—"that he did not believe it would do any good, but it might be wise to shell the woods, anyhow."

This case makes a picture for us that will remain fixed in our minds. We shall all recall it in the presence of every case of so-called "shaking palsy;" and just as the study of progressive muscular atrophy lent a new interest to so-called "wasting palsy," and of dementia paralytica, to the whole subject of palsy in the insane, will the study of this case excite in us henceforth a new interest in every case of "shaking palsy."

## ORIGINAL ARTICLES.

### THE EXTERNAL APPLICATION OF CARBON DISULPHIDE FOR THE RELIEF OF NEURALGIC PAINS.

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CARBON disulphide, bisulphide of carbon, or, as it is commonly known, the bisulphuret of carbon, is a colorless, transparent, exceedingly volatile liquid, having a sp. gr. of 1272, and a boiling point of 47° Fahr., a pungent, aromatic taste, and, in the unpurified state, a disagreeable, fetid, nauseating odor, not unlike that of decaying vegetable matter. This latter attribute applies to the article as found in commerce, but in its purified condition it presents an ethereal odor, not very disagreeable except, perhaps, to particularly sensitive noses. It is also exceedingly inflammable, burning with a pretty bluish flame, depositing free sulphur in a finely divided state. It mixes freely with alcohol, ether, the ethereal and fatty oils, but it is almost insoluble in water; however, when shaken up with it falling down as globular drops, imparting to the water its peculiar



taste and smell. Regarding its solvent properties, it dissolves phosphorus, sulphur, bromine, iodine, caoutchouc, and the solid fats. As before stated, it is exceedingly volatile, its vapor forming a highly explosive mixture with the air.

It was discovered in 1796, by Lampadius, but it was not until 1826 that he described its preparation, properties, and medicinal uses in a monograph entitled *Ueber den Schwefelalkohol, etc.*, Frieß., 1826, a second edition appearing in 1833. He recommended it principally against rheumatic and gouty troubles, given internally and applied externally, and relates that in Frieberg a mixture of one part of camphor, two of carbon disulphide, and four of alcohol was a very common external application in rheumatic pains. He also speaks of it as being useful in instances of slight burns. Since his time it has been frequently employed against rheumatic and gouty affections by Beasley, Wutzer, Otto, and Mansfield, all of whom claim good results, more especially in those cases unaccompanied by febrile movement, or where the fever was but slight. In such cases the remedy was given internally in doses of gtt. v. in alcohol, every two hours, while the affected part was rubbed with an embrocation consisting of one part bisulphide and four of olive oil. Otto states that his cases were cured in from eight to fifteen days, adding, however, that it was useless in instances of "deep-rooted dyscrasies." For external application in similar cases, Wutzer recommended a linament of carbon disulphide, 3ij, spirits of camphor, 3iv. Tried at the Berlin Charité in chronic rheumatism, it was found of no avail. Of late years it has justly, I think, fallen into disuse as regards its application in gouty and rheumatic complaints, no one, as far as I am aware, at present using it against these maladies.

For the relief of after-pains it has also been employed by Mansfield, and apparently with benefit. He affirms that good results were obtained from it even when ergot had failed. His method of applying it consisted simply in rubbing the pure bisulphide over the abdomen.

The first to directly call the attention of the profession to the topical use of this remedy for the relief of pain of the neuralgic type was Schiel, of St. Louis, in an article published in the *St. Louis Med. and Surg. Journ.*, January, 1857, in which he pointed out its employment in facial neuralgia, odontalgia, and similar affections. He proceeded by pouring a mixture of equal parts of alcohol and the bisulphide upon some new cotton, which was then rubbed vigorously for five or six seconds over the affected part, a measure which, he claimed, was followed by marked relief. Later, Kennion (*British Med. Journ.*, June 13, 1868, p. 584,) again drew attention to the efficacy of the remedy when locally applied in the relief of the various varieties of headaches. He writes, "I have not the least claim to the discovery of this remedy, nor, indeed, am I at all aware who was its originator. I have used it for twelve months in a very large number of cases, and very rarely without affording immediate relief." He found that the class of headaches in which it is chiefly useful are those which have been classified as

nervous, such as the neuralgic, the periodic, and the hysterical. He has even found it useful, he states, in many kinds of dyspeptic headache. While not claiming the cure of the trouble, he simply expects its relief. Thus, he says, "although the relief of a symptom is a very different affair, of course, from the removal of its cause, yet no one who has witnessed (and who of us has not seen?) the agony and distress occasioned by severe and repeated headache, but must rejoice in having the power of affording relief in so prompt and simple a manner."

However, in spite of these positive statements, the remedy seems to have been forgotten, for nothing is heard of it until 1872, when Dr. S. R. Nessley, of Ohio, again drew attention to the drug in the *Journal of Materia Medica*. He employed it against facial neuralgia, hemicrania, odontalgia, and lumbago, obtaining, he states, in nearly every instance almost instantaneous relief. It is no more than fair to state, however, that Dr. H. C. Wood, commenting in *New Remedies*, vol. i., 1872, p. 125, on Dr. Nessley's article, remarks that in his hands the remedy has failed in facial neuralgia, adding, however, by reason of its "producing so much pain, patients refuse it a fair trial." In the *U. S. Dispensatory*, 13th Ed., Phila., 1873, I find the statement that Dr. C. G. Page, of Boston, has used the vapor with advantage for the alleviation of local pain, but no reference to the source from whence this is obtained is given.

The foregoing is all that has been written of the topical applications of this little-known remedy as an agent for the relief of pain; and, as far as I have been able to determine, its employment in this direction at least has at present fallen entirely into disuse. I first began to employ it for the relief of pain while Interne in Bellevue Hospital, in 1876-77, and since then have used it in hundreds of cases, sometimes giving complete relief, at times producing but partial alleviation, not infrequently failing entirely, while in a small percentage, absolute and entire cure followed its application. By these successes and failures I now consider myself in a position to point out when the remedy will be useful; when useless. I began by applying it indiscriminately in all cases where pain appeared as a symptom, and met with frequent failures, but as time went on I gradually narrowed the field of its application, till at present, I believe I have pretty accurately determined the limits of its usefulness.

In all cases of pain symptomatic of inflammatory or organic changes, as in pleurisy, pericarditis, abscess, necrosis, tumors, and the like, it is of little or no benefit; in fact, in all cases dependent upon organic changes, or where appreciable pathological conditions involve the nerve it is idle to expect any relief from its use. Only to those cases which may be styled the pure neuralgiæ is it found efficacious, and here it has seldom failed me; in the large majority of instances the relief has been complete and almost instantaneous, seldom has it been but partial and delayed, and in only a very few cases has it absolutely failed. In these last instances, where failure has been reported, the remedy had been applied by the patient.



As far as I can remember, in no case of simple and pure neuralgic pain have I met with failure when I have myself applied the remedy. Sometimes, it is true, the relief has been but partial, but even here repeated application has been followed by success, or the suffering has steadily though not completely diminished. In some instances actual cure has followed repeated employment of this agent, though it must be confessed that such cases have been few. I have employed it against a large number of cases of neuralgia of the various branches of the fifth pair, in occipital, cervical, intercostal, and sciatic neuralgiae, and have seldom failed to give relief. Repeated applications on recurrence of the pain, gave similar results, save in a very few cases. Cure has followed in two cases of sciatica, in one of which both nerves were involved, in one instance of occipito-cervical neuralgia, and in several patients suffering from involvement of the supra-orbital branch of the trifacial.

I have met with some success in lumbago, but would not place much reliance upon it in the alleviation of the pain of this complaint. In cephalalgia, belonging to the so-called nervous class, success uniformly followed the application of the drug. In this my experience agrees with that of Kennion. Against organic headache it is of but little avail.

As regards its mode of application, several methods might be indicated; but that which I have always employed with the best results is as follows: A ball of ordinary cotton-batting is drawn out into a conical shape, and upon the apex of this cone five or ten drops of the bisulphide are poured. The cone is then inverted and pressed firmly over the painful part, the object being to prevent volatilization of the drug. The place of application is of prime importance. I generally search carefully for the point of greatest pain, that is, the seat of the so-called *tic*, and here the point of the cone is pressed. If I cannot find this, I request the patient to indicate with his finger the place where the pain is most severely felt, and here I make my application. Where the pain is wide-spread, the application may be made at several points. In cephalalgia the mastoid processes on the temples were usually selected, but in some cases where the pain is principally vertical or frontal, we may apply it at the vertex or middle of the forehead. In applications about the face, the patient should be requested to close the eyes, as some irritation and lachrymation may otherwise follow. If the pain return, which it is apt to do after some hours or days, the application may be repeated as often as necessary without the slightest fear of trouble following. I have yet to meet with a case of any accident of any kind whatever.

The length of application is governed by the sensations of the patient only, and hence varies in different individuals. Usually in about a half a minute or a minute the patient begins to feel a sensation of warmth at the point of application. This steadily increases until it reaches a point when it can no longer be endured, being described as not unlike the burning of a coal of fire. The patient is told to endure it as long as he comfortably can, removing it as soon as it becomes in the least bit

unbearable. This period will, of course, vary with the varying susceptibility of different patients, some requiring the cotton to be withdrawn almost immediately, others allowing it to remain some two, three, or four minutes, and some even longer. The relief given is almost instantaneous. The local effects produced are usually reddening of the skin over a varying area and to a varying degree, and the deposit of a faint white powdery film on evaporation of the drug. This latter may be easily washed off, while the former slowly but steadily vanishes. The pain produced as a rule disappears in about a ratio inverse to its appearance, and with it the pain of the original trouble will be found to have in great part or entirely vanished. It does not vesicate or blister, the only visible local condition following as a result of its action being the hyperæmia of the skin and the powdery deposit already noted.

Two objections may perhaps be urged against the employment of the bisulphide: 1, its bad odor; 2, its production of pain. As regards the first, if the ordinary article of commerce be used, the objection holds good, but we have in the market a form of the agent to which this does not apply; for by purification its bad odor can be in great part gotten rid of and an article obtained having an ethereal, somewhat aromatic smell, disagreeable, as far as my experience goes, to but few persons. Besides, if relief be obtained by the patient, all objection respecting its odor on his part will soon cease, and none will refuse its further employment. There are many agents commonly used in medicine whose odor is far more unpleasant than is this, but few object to them. As far as the production of pain is concerned, it is to be borne in mind that the discomfort produced is merely transient, need never be to an unbearable degree, the patient's own sensations being in every case consulted, and when it is remembered that it overcomes in many cases a pain far more intense than that which it produces, this can hardly be urged as a valid objection to its employment. Many remedies are employed for their local effects against pain which produce much more inconvenience and suffering, both as regards intensity and duration, than does the disulphide of carbon, as for instance, blisters, the actual cautery, tinct. iodine, yet they are measures of ordinary and daily application. I have never yet met with a case where the patient refused further use of the drug either on account of its unpleasant odor or the pain produced by it, and I have employed it during the last six years in scores of cases, male and female, young and old.

Kennion, already quoted, although expressing himself as in doubt, was disposed to attribute the benefit obtained from the application to the sedative effect of the vapor of the bisulphide, by absorption through the skin, and thus acting upon the superficial nerves of the part. Napheys (*Modern Therapeutics*, 1877, p. 49), coincides with this opinion. Pereira, on the contrary, speaks of it as an acrid local irritant. As for myself, I have as yet been unable to reach a positive conclusion respecting its *modus operandi*, though inclining to the belief that it acts simply as an intense, rapidly acting, and transient

local counter-irritant, not as a local anæsthetic. I have, in many cases, tested the sensation of the part to which the application had been made, and have, in the large majority of instances, found it normal; in a very few hyperæsthesia existed, while in a small percentage slight anæsthesia was noted. I remember but one instance where complete local anæsthesia was induced, the application being made to relieve the pain of a perihepatitis, but, in this case, no benefit, however, followed.

To sum up, I would recommend the use of the carbon disulphide only against the pure neuralgia and cephalalgia of the nervous type. Cure need not be expected, though relief, more or less complete, is, in the large percentage of cases, obtained. The application must be to the point or points of greatest pain, and need only be persisted in as long as the patient can comfortably bear it. It may be repeated as often as the pain recurs, and no evil effects will follow, no matter how often or how numerous the applications.

The following are a few of many cases which might be quoted to prove its efficacy:

CASE I.—P. M.—, æt. thirty-two, fireman, first seen December 18, 1877, was attacked three weeks ago with severe pain over the region of the right sacro-sciatic foramen, radiating down the thigh and leg to the ankle and foot, with tenderness over the same regions. The pain was intense, but he was able to work up to the time of coming under observation. When seen, was able to walk a little, but was suffering intensely with pain along the course of the right great sciatic nerve. Tenderness, on pressure, marked; especially over the sacro-sciatic foramen.

*Treatment.*—Rest in bed, with hypodermics of aqua pura, ℥ss., morning and evening, along the nerve.

December 24. Still in bed; has improved somewhat under the use of the water, but the relief was, in such instances, merely transient, necessitating the use of hypodermics of morphia and atropia at night.

29th. Much better and out of bed; treatment as before.

January 4, 1878. On Sunday, the 30th of December, the left lower extremity was attacked, but the pain was not very severe. Treatment as before, with liq. potass. arsenit., ℥v., and tr. ferri chloridi, ℥xxijss. t.i.d., added.

15th. Steady improvement; has only occasional shooting pains.

February 1. Pain to-day returned in the right leg with its former violence. Gave morph. sulph. and atrop. sulph. hypodermically, which relieved for a time. Applied blister over exit of the nerve, with but little benefit.

2d. Pain very bad; used the carbon bisulphide for the first time, relieving him almost instantly. Complete absence of pain for fully three hours. Repetition of the application produced similar happy results. Treatment to be tr. gelsem., ℥v. t.i.d., and applications of the bisulphide as indicated.

9th. Better; since last note has had occasional attacks of pain, but not of a very severe character, coming on usually towards evening. The bisulphide continued with good results, the pain disappearing for several hours after its use.

21st. The improvement steadily continued, and to-day he was discharged cured.

CASE II.—Patrick Y—, æt. thirty-four, tailor, admitted January 3, 1878; when first seen, was suffering from left-sided sciatica. Various measures were used for the relief of his pain, such as hypodermics of morphia, atropia, blisters, the internal administration

of arsenic, iron, quinine, etc., with but partial and transient success. On February 2, the same day as in the foregoing case, the bisulphide was applied over the sacro-sciatic foramen, the point of greatest pain on pressure, with immediate relief. At first the benefit from the application was more marked than in the previous case, but later on the relief was only for several hours. Finally, under the repeated use of the drug, the pain entirely ceased. I must add that he also began to take the tr. gelsem., ℥v. t.i.d., at the same time that the bisulphide was commenced, and continued to take it up to the time of his discharge, March 7. The result was a perfect cure.

CASE III.—Ann M—, æt. thirty-four, admitted February 20, 1878, had been suffering for several days from intense pain over the right gluteal region. When seen the pain was principally located over the crest of the ileum, especially over its anterior portion, the pain on pressure being more marked as the anterior superior spinous process was approached, being most intense at this point. She was given a hypodermic of water, ℥ss., over the seat of pain, giving relief, but in the course of a few hours it returned with increased intensity. A large blister was then applied. As long as this remained there was no pain, the latter returning as soon as it had healed. February 27, the bisulphide was applied over the anterior portion of the crest of the ileum, with immediate relief. In this case the benefit derived was more pronounced and prolonged than in the previous cases. Altogether, but two applications were made, and the patient felt so well that on March 2 she requested her discharge.

CASE IV.—The next case was one of neuralgia of the fifth nerve, in which everything, even hypodermics, failed. The bisulphide was applied, and the pain disappeared as if by magic. A second recurrence of the neuralgic attack was overcome in a like manner. This was a case of tic douloureux, occurring only at long intervals, hence, although there was probably no cure, the benefit was so marked that for the time being it became equivalent to one. This patient was lost sight of.

CASE V.—A case of nervous headache in a female, æt. twenty-two. In this patient the attacks usually lasted the entire day. When seen had been suffering for two hours. Relief was immediate, all that remained of the cephalalgia being, as the patient described it, "a queer feeling in the head."

CASE VI.—Sciatica, existing for several months; treatment by morphia, hypodermically, and by various internal anti-neuralgic remedies, merely gave relief. The bisulphide was applied, and was followed by immediate disappearance of the pain. Since then there has been no recurrence, an occasional sense of stiffness in the limb being only noted. It is nothing but fair to state that for a few days previous to the application there had been steady improvement, although all treatment had been abandoned by the patient. The pain, however, at the time, was pretty severe.

CASE VII.—An instance of cervico-occipital neuralgia in a female, lasting for years. Various forms of treatment had been tried, even the cauterization had been applied without success. The applications were made to the vertex, occiput, and nape of neck, about twice a week for a month, each time giving relief. At the end of this time the pain had disappeared entirely. After several months a slight pain recurred at the occiput, which was entirely and permanently relieved by a single application.

CASE VIII.—A case of acute neuralgia of the supra-orbital branch of the fifth, of one day's standing, in an adult male. Made three applications, one to exit of nerve and two to the middle of forehead. Result, almost complete relief in a few minutes. Internal treatment by quinine and Fowler's solution. No recurrence.

CASE IX.—A case of supra-orbital neuralgia in a female, æt. thirty-six, apparently dependent upon ovarian irritation, and existing for years. The remedy was applied at the exit of the nerve, giving partial relief. Repeated applications continued the improvement. Citrate of caffein was given internally, in grs. iii. doses every three hours, until three doses had been taken. Three days later the patient was almost entirely free of pain, this attack, she states, having been an unusually short one.

### URETHROCELE,

WITH REPORT OF A CASE SUCCESSFULLY OPERATED  
UPON BY DR. T. G. THOMAS.

BY ANDREW F. CURRIER, M.D.,

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It is not often that the gynecologist has opportunity to observe and record cases of this nature, and, hence, it may be looked upon as a pathological curiosity. Prolapse of the mucous membrane of the anterior wall of the vagina, with attendant prolapse of the bladder, is common enough. The same condition is not unfrequently extended to the urethro-vaginal septum, but neither of these is urethrocele, for here we have a dilatation involving more or less of the posterior urethral wall and the underlying urethro-vaginal tissue, a diverticulum urethræ, as Winckel calls it.

Dr. Thomas tells me he has seen only two cases of the kind.

Dr. H. J. Garrigues described to me one case in his practice in the summer of 1881. The treatment consisted of hot carbolized vaginal injections, and compression of the tumor. As to the final result, he was unable to speak, as the patient passed from his observation.

The only literature of the subject which I have been able to find is in Billroth's *Frauenkrankheiten*, Neunter Abschnitt, S. 37 u. 38, where Winckel reports four cases as all he has discovered upon record, respectively, those of Foucher, Gilette, G. Simon, and Priestley.

The case of Foucher (1857) was that of a woman twenty-seven years of age, who had suffered pain in micturition for four years, and had a small tumor three to four millimetres above the meatus urinarius. He operated similarly to Jobert in cystocele, incising the vaginal wall the entire length of the tumor, then removing a section one centimetre in width on both sides, and stitching the edges together. The result was satisfactory.

Gilette's patient was thirty-one years of age, the mother of three children; cured after the removal of a triangular section from the vaginal wall, and suture of the edges.

Simon's patient was forty-four years of age, the mother of eleven children, and a sufferer from incontinence of urine since the age of sixteen. For three years previous to her coming to Simon, the control of the urinary function was entirely lost, even while in the recumbent position. The tumor was almost of the size of an egg, and occupied the entire extent of the posterior urethral wall. The veins in the urethro-vaginal septum were much enlarged, and hæmorrhage was easily excited. He

performed two operations, in which ten venous plexuses were cut, four requiring ligation, the wound being touched with chloride of iron. The improvement from contraction of the tumor was marked, and six months after operation urine was lost only when severe exertions, as in lifting, walking, etc., were made. Simon thought the improvement would not be permanent, and considered further dilatation and venous enlargement probable.

In Priestley's case the tumor was about half the size of an egg, and upon pressure pus and urine flowed from the mouth of the urethra. His treatment was compression by means of a Barnes' dilator introduced into the vagina, so preventing the sac from filling, and overcoming the difficulty.

The case of Dr. Thomas presented all the pathological features seen in those already referred to, and the excellent result testifies as to the propriety of the method of operation.

Mrs. C. A. V., colored; nativity, United States; residence, Long Branch, N. J.; age, forty-three; was admitted to the service of Dr. T. G. Thomas, in the Woman's Hospital, November 23, 1881. She has been married twenty-three years, has had three children, the last having been born sixteen years since, and no miscarriages. For the last five years she has suffered severe pains in the left side and leg, headache, difficult and painful micturition, the urine being dark, and very offensive in odor. Locomotion is difficult and fatiguing. Previous treatment has been medication only.

December 10.—The patient being under ether, in Sims' position, Sims' speculum was introduced, and a bluish-red tumor appeared, projecting into the vagina from the posterior urethral wall, its size being about that of an English walnut. The sound being passed into the urethra, its tip could be felt most readily by the forefinger of the left hand, placed against the tumor, thus proving the diagnosis. The urethra was either abnormally long or had been elongated in the development of the tumor. The latter was soft and elastic in feel, and gave to the finger the sensation of a recent plastic exudation in loose tissue. It was symmetrically convex, about forty-five to fifty millimetres in diameter. Beginning at a point about fifteen millimetres from its anterior termination, and extending an equal distance posteriorly, an elliptical section of the urethro-vaginal septum was removed with curved scissors, including all the diseased portion of this tissue. A nearly circular section of the superjacent urethral mucous membrane was next removed, about two-thirds the length of the former, or, in other words, removing only the diseased tissue. The hæmorrhage from the latter, both arterial and venous, was most profuse. From twelve to fifteen points required ligation. The edges of the urethral wound were brought together with three silk sutures; those of the vagina with eleven silver ones. The bladder was then washed out with a hot, weakly carbolized solution, and a flexible rubber catheter introduced. The knees were then tied, and the patient placed in bed upon her back. No hæmorrhage of any consequence followed, the bowels were constipated for a week, and the occasionally severe pain controlled



by hypodermic injections of morphia. The urine drained into a cup, kept in the bed under the catheter. The portion of vaginal mucous membrane removed presented, as already stated, a bluish-red appearance, thin and nearly smooth. The urethral portion was dark red in color, with an ulcerated patch in its centre about the size of a three-cent piece.

*December 10.*—Sutures removed. The parts are nearly healed, and no urine escapes. There has been some sloughing in the vaginal wound.

*December 21.*—Catheter removed. The patient passes urine without pain, and the organ seems to be restored to its natural condition.

*January 5, 1882.*—The patient has gained strength quite slowly, and required considerable stimulation. She is now able to walk about the ward, the wound is entirely healed, and she was this day discharged cured.

As will be seen, the operation was different from that practised in either of the four cases reported by Winckel, though most resembling Foucher's. It seems like a waste of time to resort to compression in a condition of this nature, for it must be continued a long time, and then does not promise a permanent cure.

The radical operation is best suited to the interests of the patient, and in the end must be more satisfactory to the surgeon.

#### A CASE OF REPEATED EXTRA-UTERINE PREGNANCY CURED BY GALVANISM.

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IN the *Ohio Medical and Surgical Journal* for October, 1877, I reported, in connection with Prof. Starling Loving, a case of extra-uterine pregnancy cured by galvanism. The tumor, as therein set forth, was scarcely to be felt after a few months, and within a year no trace of it could be discovered. Menstruation began April 16, 1877, and continued with complete regularity until October 4, 1881, during which period she enjoyed robust health, with the exception of a few transient ailments. On the latter date, four and a half years after the former pregnancy, the menstrual flow appeared for one day, and was scanty and of ill odor. By the end of October, she suffered somewhat from nausea, and believed herself pregnant. On November 9 she began to have quite severe attacks of pain, accompanied by tenesmus, and referred to the rectum and lower part of the abdomen. They were at first short in duration, and easily relieved by enemata and moderate doses of anodynes, and occurred only once a day, or even every other day, so that quinia was given, but without effect. Digital examination at this date showed the womb to be somewhat enlarged, and there was a sensation of fullness in Douglas's cul-de-sac. Little change occurred until December 1, when Dr. Loving and I made a more thorough exploration. We found the uterus enlarged, and pushed forwards by a cystic tumor in Douglas's cul-de-sac, now very plain. As there was still ground for supposing that a normal uterine pregnancy had

led to a refilling of the old sac, or at least to some form of growth connected with it, we deemed it best to wait and watch. This did not take long, for on the morning of December 6, soon after rising, the patient was attacked by the typical and horrible pain of extra-uterine pregnancy. In five minutes she looked as if she had been sick for months; the features were pinched and extremities cold, with the whole surface bathed in a cold sweat. A thick lochial-like discharge was also observed, and the sound entered the empty uterus to the depth of four inches. The uterus reached nearly half way from pubes to umbilicus, and the tumor, indistinctly separable from it, was found in the left iliac region. Occasional contractions could be felt in the cyst, especially when the pain was severe. The womb and tumor alike seemed immovably wedged in the pelvis.

The pain was held in check by morphia and chloral until 1 P.M., when she was seen by Dr. A. Dunlap, who corroborated the diagnosis. At 3 P.M. the first application of the battery was made, using a Fleming one-celled battery (No. 2), the induced current, poles in 5 and 7, and the coil gradually about one-half uncovered. The application was made for ten minutes, after which she was much easier, though any attempt to take food induced vomiting. The contractions and pain were much less, but continued at intervals until the next application of the battery. This was repeated on December 7, 8, 9, 11, and 14, a strong current being used for ten or twenty minutes, except in the last application, when the current was maintained for fifty-three minutes, the coil being gradually entirely uncovered, so that the action was very intense during the last few minutes. No contractions were observed after the 14th, nor any pain, except when having a passage from the bowels, which was rendered difficult by the mechanical pressure of the tumor upon the rectum. The lochial-like flow which began on the 6th ceased entirely by the 13th, during which time the decidual lining of the womb came away, mainly in two large pieces, with many smaller flakes. Whether due to the disturbing influence of the battery or not, a considerable amount of reflex disturbance continued, mainly vomiting, and her convalescence seemed rather longer than during the former experience, and it was nearly a month before she could get about again. Menstruation returned normally on January 31, and at the last examination, on February 24, the tumor had considerably diminished in size, the patient appearing in excellent health, and with no complaints as to the local condition.

This adds another, the thirteenth at least, to the already very respectable list of cures of this accident by galvanism. When so formidable a condition as this can be certainly cured by so attainable a remedy, a degree of criminality attaches to the use of any other method, provided the diagnosis can be made early.

Another point of interest in this case is, that it was a repetition of the accident. Of the cases collected by Parry, in which a woman suffered twice from extra-uterine pregnancy, only about half a

dozen are beyond dispute. The only one given in detail is that of Dr. Haydon, in which, singularly enough, the interval between the pregnancies was the same as in this case, and both cysts were upon the same side. A fact relating to causation, which was not noted in the account of the former pregnancy, may be here mentioned. In a former labor (1872) there was a laceration of the cervix upon the left side, extending into the vaginal mucous membrane. This healed entirely, but left a cicatricial band which tends to draw the cervix somewhat to the left. Perhaps the consequent tilting of the fundus uteri to the right may have so altered the relations of the parts concerned as to make the journey of the ovum to the oviduct difficult, and have thus twice led to the occurrence of the accident.

## HOSPITAL NOTES.

### NOTES ON THE TREATMENT OF FRACTURES IN THE BOSTON HOSPITALS.

*Fractures of the Femur.*—In the principal hospitals in Boston, some form of Buck's extension, with weight and pulley, or of Desault's apparatus, is used in the treatment of a great majority of fractures of the femur. The modifications are, however, numerous, to suit special cases. All fractures of the femur are put up under ether, whatever the form of dressing applied.

At the Massachusetts General Hospital fractures of the neck of the femur are generally treated by Crosbie's modification of Buck's extension, the extension strips of adhesive plaster reaching from the ankle to the middle of the thigh, secured by three or more circular straps, and a bandage then applied from the toes to the upper part of the thigh. A coat of starch is applied over all to prevent the bandage from slipping. Extension is made by weight and pulley, and counter-extension by the weight of the body, the foot of the bed being raised.

Numerous devices are employed to overcome the tendency to eversion. One of the most common of these is to attach one or more broad strips of bandage to the inside of the leg, carrying them under the calf, and bringing them up on the outside, attaching them to the top bar of the "cradle" used to protect the limb from the pressure of the bed-clothes. The limb is thus hung in a sling, and its weight causes it to rotate inwards. Sand-bags are also sometimes used for the same purpose, but, as they are easily displaced by slight movements of the patient, they are little employed alone.

At the City Hospital, Crosbie's extension, with a long T splint, is generally used in these cases. The splint, which is securely fastened to the limb, reaches from the axilla to below the foot, where the long cross-piece is attached, thus preventing any rotation of the limb.

In case of failing strength or the appearance of typhoidal symptoms in aged patients with impacted fracture of the neck, some simple apparatus, such as a stiff canvas shaped like a spica of the thigh, and buckled in place, is applied, and the patient allowed to get out of bed if possible—the general condition, and not the fracture, calling for treatment.

Fractures through the trochanter are treated by Crosbie's extension, with the addition of a long external splint and the abdominal belt, or a long T splint.

In fractures of the upper third, Crosbie's apparatus, as above, or Flagg's modification of Desault's long splint, is used. The latter is applied as follows: Extension strips of adhesive plaster are applied as in Buck's

extension; on the outside of the limb is a long, straight splint, reaching from below the foot to a pocket in a broad abdominal belt; on the inside a similar splint reaching nearly to the perineum. These splints are rolled in a sheet in such a manner as to make a trough in which the limb rests, and are secured by several circular straps. The side-splints slide through two slits in a cross-bar, which may be secured at any distance below the foot by means of pins, and extension is made by a wooden screw working in this cross-bar, and to which the extension strips are attached. Perineal bands attached to the abdominal belt give the required counter-extension. Figured in *Hamilton*, p. 449.

In fractures of the upper third, where there is tilting of the upper fragment, the double-inclined plane is sometimes used. The deformity is also overcome by carrying the foot upwards and outwards.

In fractures of the middle and lower thirds, Crosbie's extension, with or without a long ham-splint, is generally used. The external T splint and the double-inclined plane are also applied. Coaptation splints are always used, unless the fracture is very near the extremities of the bone.

In children simple fracture of the femur is more often treated by double T splint than by any other method.

Plaster and other stiff bandages are almost never used as a primary dressing. Even late in the treatment there is so much danger of bowing and shortening, that dextrine, or glue and starch bandages, so much used in fracture of the leg, are seldom applied to the thigh.

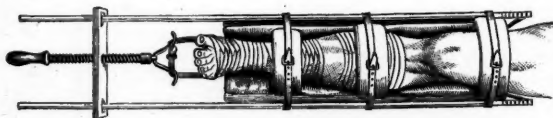
Compound fractures are dressed either according to Lister, or with some modified antiseptic dressing, or constant irrigation with carbolic solution is employed. Crosbie's extension, long "Desault splint," or Smith's anterior wire splint are applied over the dressing. Smith's anterior splint is especially used at the City Hospital in cases complicated by delirium tremens.

*Fractures of the Leg.*—In simple cases, where there is little tendency to displacement, a pillow folded about the leg and supported by straight pieces of splint-wood, the old fracture-box, or Day's carved side-splints, are generally used. The fracture-box is especially used for fracture near the ankle, and the carved side-splint, with the patient on the side, and leg flexed, is often useful in case of riding of the lower fragment in fractures of the middle third.

At the Massachusetts General Hospital a splint called the "short Desault" is very often used in fractures of the middle third, where there is tendency to displacement. It is applied as follows: Extension strips are applied in the usual manner from the ankle to a point a short distance below the fracture, and similar strips are applied from above the point of fracture to the knee, free ends a foot long being left above the knee. Two straight splints, about three and one-half inches wide by three and one-half feet long, are placed on each side of the leg, and to their upper ends the counter-extension strips are firmly fastened, about six inches above the knee. Below the foot is a cross-bar and screw, as in the "long Desault" already described. It will be seen that on tightening the screw, extension and counter-extension will be made, and the fragments drawn asunder. Between the side splints and the leg, folded sheets and towels may be placed to protect the leg, and to correct any lateral displacement. The whole apparatus is firmly held together by straps and buckles. Under these straps folded compresses or towels may be so arranged as to prevent any overriding. Beneath the leg, and reaching from the heel to the middle of the thigh, are one or two folded sheets, which are included in the straps.

The accompanying cut shows the splint applied. The fracture is in the middle of the leg, between the

bandages. The extension strips reach from the top of the lower bandage to the spreader attached to the screw, and the counter-extension from the lower edge of the upper bandage to the top of the splints, where they are fastened.



For Pott's fracture Pott's outside-splint is very generally used.

When the fracture is moderately firm, a stiff bandage of plaster, dextrine, silicate of potash, or starch and glue is applied. A light plaster, covered with a layer of dextrine bandage, is a very convenient form of dressing.

Compound fractures of the leg are dressed antiseptically; when necessary, loose fragments removed, and the extremities wired, and any of the above-mentioned splints applied. At the City Hospital a plaster tray, made of plaster rubbed into several thickness of gauze, and moulded to fit the limb, is frequently employed. A fracture-box, with sides in sections, is also used.

At the Massachusetts General Hospital a railroad fracture-box has been used for many years, and is very useful where there is tendency to overriding. This is a simple fracture-box on rollers, which run on a suitable railroad. Extension can be applied to the box by means of weight and pulley.

In case the heel becomes chafed or tender, it is raised by means of gauze strips or combed flax attached to the sole of the foot by collodion, and tied to the cradle over the limb, or to a special bow attached to the fracture-box or other apparatus employed.

*Fracture of the Forearm*, when near the elbow, is treated with the internal angular splint, except fracture of the olecranon, which is treated in the usual manner by extension on a straight splint.

In the middle third, anterior and posterior splints, generally the spoon-shaped carved splints, are applied. For those near the wrist (Colles' fracture, etc.), quite a number of splints have been devised, but those now most used are the anterior and posterior carved, Drs. Bolles' and Bond's.

## MEDICAL PROGRESS.

**PULMONARY CAVITIES.**—In the first Gulstonian lecture on the above subject, Dr. WM. EWART alludes to the following as the chief features of the walls of cavities:

1. Absence of protecting epithelium.
2. Gradual decay within, leading to the formation of a necrotic layer (pseudo-pyogenic).
3. Gradual fibroid growth from without, constituting the so-called capsule.

From the standpoint of anatomical description, he proposes, side by side with this useful division, the following classification of cavities:

1. Cavities devoid of limiting membrane: in these excavation takes place by a crumbling in the dry variety, by a liquefaction in the moist variety. The usual type is the moist. Reaction is at a minimum, and disintegration often overtakes the fibroid zone before it has become a protection to the tissue. *Special subvarieties:*
  - a. Suppurative necrotic form, commonly present in acute phthisis, where it is apt to occasion pneumothorax;
  - b. Simple liquefaction, apparently from soakage, most frequently witnessed in compressed devitalized tissues when attacked by œdema;
  - c. Ichorous ulceration, ob-

served in the rigid and sinuous burrowings of indurative chronic pneumonia.

2. Cavities possessing a distinct capsule in the midst of spongy lung-tissue: excavation is due to limited caseous abscesses, frequently also to the softening of hæmorrhagic foci.

3. Chronic cavities with thick lining, continuous, with more or less induration, partly inflammatory, but chiefly due to collapse.

4. Chronic cavities with thick lining, surrounded by a rim of tubercle.—*British Med. Journ.*, March 11, 1882.

**THE ACTION OF CALOMEL ON FERMENTATION AND ON THE LIFE OF MICRO-ORGANISMS.**—A paper with this heading appears in the last number of Hoppe-Seyler's *Zeitschrift für Physiologische Chemie*, by N. P. WASSILIEFF, who, after noting the high estimation in which calomel has been always held in disordered conditions of the bowels, especially in children, points out the absence of any experiments to show or explain the cause of its influence, with one or two exceptions. Voit, indeed, as long ago as 1857, observed that albumen and blood mingled with calomel were capable of being kept for days without any indication of putrefaction, and Hoppe-Seyler made some similar observations; but besides these, few, if any, researches have been made on its action. In M. Wassilieff's experiments, calomel was added to the fluid obtained by acting on albumen with gastric juice, and to that obtained by acting on albumen with pancreatic juice: and he satisfied himself that the albumen-digesting ferment of both these fluids was not damaged by calomel—peptones in the one instance, and leucin and tyrosin in the other, appearing as usual—but that the presence of this substance prevented the formation of the secondary products, such as indol and phenol. Neither hydrogen nor hydrogen sulphide formed in the fluids containing calomel, whilst they were abundantly produced in the others. In like manner, the author experimented on the effects of calomel on the fat-digesting and the amylolytic ferments of the pancreas, and found that it had no modifying influence upon them, but that it arrested the changes which followed their completion, entirely preventing, for example, the butyric acid fermentation and putrefactive processes. He hence arrives at the conclusion that calomel acts differently on the formed or organized and the unformed or unorganized ferments, permitting the action of the former to proceed unchecked, but completely preventing the action of the latter.—*Lancet*, March 4, 1882.

**ANOTHER DEATH UNDER CHLOROFORM.**—Notice has been forwarded to the coroner for Central Middlesex of the sudden death of a gentleman from Manchester, who died at the Surgical Home, Fitzroy-square, on the 22d ult. It appears that the patient came to London on February 20, having previously consulted Mr. Lister, for the purpose of undergoing an operation in respect of a lumbar abscess, from which he had been suffering. The deceased was about to be operated upon by Mr. Lister, and was being placed under the influence of chloroform by Mr. Watson Cheyne, when he suddenly expired from its effects, although every effort was made to resuscitate life. The deceased gentleman is stated to have been twenty-seven years of age. A certificate of the cause of death, stating, primarily, "chronic abscess of the abdomen," secondarily, "the effects of chloroform," was taken to the district registrar, who declined to register and communicated with the coroner. In the meantime, however, the body having been removed to Manchester, the necessary information has been forwarded to the coroner for that city. A *post-mortem* examination showed that the heart of the deceased was quite healthy.—*Lancet*, March 4, 1882.



**STRYCHNIA.**—M. DELAUNAY has found that if one limb of a frog is faradized for half an hour, and the animal is then poisoned with strychnia, the convulsions appear sooner in this limb than in the others. The effect is not observed if the current passes for five minutes or for an hour, probably because in the former case its influence is insufficient, and in the latter case is too great and exhausts the nerves. If the same dose of strychnia is given to each of two frogs, and one is suspended by the head and the other by the feet, the latter is seized with convulsions twenty minutes before the former. The depending position of the head seems to render the effect of the strychnia more rapid and more intense. The practical inference is drawn from this that it is unwise to allow persons who are poisoned with strychnia to lie down; they should be kept up by mechanical means. The effect of strychnia on sensibility was found to be manifested sooner by a small than by a large frog, on the left side sooner than on the right, and in the fore limbs sooner than in the hind limbs. Richet has shown that a large dose of strychnia kills without causing convulsions. If a frog thus poisoned is bled, the tonic spasms occur which characterize the ordinary form of poisoning.—*Lancet*, Feb. 25, 1882.

**ACTION OF IODOFORM.**—The following is a summary of the actions of this drug, as determined by HÖGYES from a series of very complete experimental investigations:

1. Iodoform, in suitable doses for dogs, cats, and rabbits, is a poison, and causes, in a few days, emaciation, with slow death, without convulsions. It is both a heart and respiratory poison.

2. Fatty degeneration of the liver, kidneys, heart, and voluntary muscles is found after death.

3. In cats and dogs it induces sleep, but not in rabbits; reflex action is not diminished during the deepest narcosis.

4. If applied in an undissolved condition to the skin, or under it, in the intestinal canal or to serous membranes, it dissolves in the fats of the part and free iodine is liberated, which unites with the albumen, and as such it is absorbed.

5. A similar formation of the albuminate of iodine takes place when iodoform is injected as an oil solution under the skin or into the serous cavities.—*Canada Med. and Surg. Journ.*, March, 1882.

**FUNCTIONAL DISTURBANCES OF SINGLE CAVITIES OF THE HEART.**—LUKJANOW, at the suggestion of Prof. Botkin, of St. Petersburg, has undertaken (*Centralb. für die Med. Wiss.*, 1881, No. 49) a series of experiments on dogs and rabbits, to determine whether the harmonious working of the heart as a whole may be prevented by occlusion or ligature of the coronary arteries, by stoppage of the respiration, or by occlusion of the aorta or pulmonary artery. He summarizes the results as follows: 1. The occlusion of one coronary artery affects first the side supplied by it, then the other side, and primarily influences the auricle. 2. Occlusion by clamping causes changes in the number and character of the contractions; the ligature differs only in producing the effect sooner. 3. Changes in the number and character do not always proceed equally. 4. Inequality in the contractions of the auricles is produced much more easily than of the ventricles. 5. The contractions of the auricles and ventricles may easily be made to be unequal in number; also the two auricles may be readily made to contract at different rates, but it is much more difficult to obtain this result with the ventricles. 6. Between the regular cardiac contractions and the irregular oscillation of muscular fibres, there is an intermediate stage of peristalsis which may run through the

heart quite regularly; the heart muscle is capable of peristalsis and antiperistalsis. 7. While the auricle is contracting regularly, but the ventricle, in consequence of occlusion of a coronary artery, shows only peristaltic movements, irritation of the peripheral end of the vagus affects the movements of the auricle, but not those of the ventricle. 8. The secondary frog's thigh contractions, which in a normal heart are manifested by all its cavities, are enfeebled by clamping a coronary artery, chiefly on the side supplied by it; most frequently secondary contractions are not obtained under these circumstances, an explanation of which is not afforded either by alterations in the number and energy of the heart's contractions, or by changes in the frog's thigh. 9. At a certain stage of the clamping of the left coronary artery, the left auricle shows marked congestive phenomena. 10. The alterations produced by occluding a coronary artery may disappear completely on the clamp being removed, with restoration of the heart's function. 11. The conus arteriosus, as regards its function, is in certain degrees independent. 12. Sudden asphyxia affects sometimes most the right heart, sometimes the left; but the phenomena are not the same as those produced by occlusion of the coronaries; amongst other things, there is no decided tendency to peristalsis, and a less rapid influence on the secondary contractions. 13. The influence of coronary occlusion appears to be very probably attributed to two principal factors; first, to the more or less sudden and complete ischæmia; second, to the retention in the heart of the waste products produced by its continued contraction for some time after the occlusion.—*London Med. Record*, Feb., 1882.

**NEURALGIA IN DIABETES MELLITUS.**—Dr. THOMAS BUZZARD calls attention to the fact, first prominently brought forward by Dr. Jules Worms, of Paris, that a form of neuralgia is apt to occur in the course of diabetes mellitus, characterized by its attacking symmetrically the two sides of the body, as well as by its unusual severity; and also to his personal observation, that two attacks of this kind, which had failed to be influenced at all by morphia, yielded with remarkable rapidity to the employment of salicylate of soda.—*Lancet*, Feb. 25, 1882.

**EXCISION OF THE CANCEROUS UTERUS.**—Statistics as to operations, compiled from the practice of many different persons, represent, not the possible results, but what may be called the average result only, because they include operations done by men of very different knowledge, skill, and experience. They tell us what has been done, but we cannot judge from them what may be done, nor always what ought to be done. The results obtained by one surgeon of experience are of much greater value for the guidance of others. Prof. Schroeder, of Berlin, has recently published in the *Zeitschrift für Geburtshilfe und Gynäkologie* the results obtained by him from the partial and complete excision of the cancerous uterus. The first group of cases which he gives comprises those of removal of the body of the uterus, the cervix being left. He has done this five times—three times for carcinoma, twice for sarcoma. Four recovered, one died from septicæmia. In one, a case of carcinoma, four months after the operation there was no sign of relapse. In another, a case of sarcoma, five months after the operation, the disease had recurred. The subsequent history of the other two is not given. The next group is of cases of Freund's operation, of which Dr. Schroeder gives eight cases, six of which were operated on by himself, one by Dr. Veit, and one by Prof. Freund. Of the eight, three recovered, five died. Of the three recoveries, one had relapsed eleven months afterwards, one died six months after-

wards from recurrence of the disease; the other, fourteen months after the operation, was as yet without relapse. Dr. Schroeder then gives his experience of the *supra-vaginal excision of the whole cervix*; i. e., dissecting off upwards the mucous membrane, connective tissue, and peritoneum, and then cutting through the cervix high up. Of this proceeding he gives thirty-seven cases, with four deaths. In one, the disease was not completely removed. Of the remaining thirty-two cases, successful so far as recovery from the operation was concerned, in fourteen recurrence took place; in three within two months; in three within three months; in three within six months; in three others within seven, eight, and nine months, respectively; in the other two the date of recurrence is not given. Seven are reported as continuing well, having been watched; in two cases two months only; in the remaining five cases, three, four, five, six, and seven months, respectively. The subsequent course of the remaining eleven cases is not stated. The last operation for uterine cancer of which the results are given is the *total extirpation of the uterus through the vagina*. This Prof. Schroeder has performed eight times, with only one death, which took place from internal hæmorrhage, the result of a laceration of the broad ligament. The successful cases were, at the time Prof. Schroeder wrote, too recent for him to make any statement as to the frequency of relapse. So far as these statistics go, the latter operation would seem the most promising. But it is one difficult of performance, in which immediate success must depend largely upon the manipulative dexterity and experience of the person who performs it; miscellaneous statistics cannot show what results may be obtained by an exceptionally skilful and careful operator.—*Med. Times and Gaz.*, March 11, 1882.

**A CASE OF PYOSALPINX BURSTING INTO THE ABDOMINAL CAVITY.**—Dr. H. BURNIER reports a case of right-sided purulent salpingitis with the termination just mentioned. (*Zeit. f. Geb. u. Gynäk.*, Bd. vi., Hft. 2.) A woman sixty-nine years of age, suffering from prolapsus uteri, died soon after admission to the hospital. In the right side of the pelvis a pus-cavity was found communicating with the right Fallopian tube. The portion of intestine attached was thinned at several points, and actually perforated at one. Burnier believed that the metritis and endometritis resulting from the prolapse had given rise to the purulent salpingitis. The free end of the tube was closed, and the consequent accumulation led to rupture. Eleven days before death the patient suffered from tolerably well-marked symptoms of peritonitis. It was probably at this time that the rupture took place.—*Canada Med. and Surg. Journ.*, March, 1882.

**ALBUMINURIA IN HEALTH AND DISEASE.**—Prof. SENATOR, in an able monograph on this subject, brings out many points of interest and value. He states that the albuminoids may be found in the form of peptone in the exudations of pleurisy, pneumonia, and acute rheumatism, as well as in the urine both in health and disease. It is suggested that its appearance in the urine is owing to a ferment-action analogous to that of the digestive ferments, and it is significant that peptonuria most usually occurs in the "zymotic" diseases. There is also an intermediate product in the changing of albumen into peptone, viz., propeptone or hemi-albumose; and that also is found in the urine, not only in cases of osteomalacia, but also in other cases, of which Dr. Senator has seen seven during the last three or four years. Urine containing propeptone (and not serum-albumin and globulin) remains clear on boiling, but becomes cloudy or gives a precipitate on the addition of acetic acid and potassium ferrocyanide. But

there are probably cases of "mixed albuminuria," in which both propeptone and the ordinary albumens (serum-albumen and globulin) occur together. The peculiarity of propeptone or hemi-albumose, that it is not coagulated by heat, is certainly the reason why so little has been known hitherto about propeptonuria. The usual method of testing for albumen (boiling, and then adding nitric or acetic acid) is inadequate for the detection of propeptone, even if the boiled urine be allowed to cool before the acid is added. The best quantitative test for albumen (precipitating every albuminoid body except peptone) is to acidulate the urine with acetic acid, and carefully add a concentrated solution of potassium ferrocyanide. The detection of peptone in the urine is not so easy; it may be present when no other form of albumen is found (according to the above tests), and it is said that metaphosphoric acid will throw it down.—*Med. Times and Gaz.*, Feb. 18, 1882.

**SYPHILIS OF THE FINGER.**—In the *Independent Practitioner*, for March, 1882, Dr. F. N. OTIS reports eight cases of syphilis occurring in physicians, originating in infection of the finger in vaginal examinations.

**ERGOT IN DIABETES INSIPIDUS.**—In the *Detroit Clinic*, for March 15, 1882, Dr. W. N. CASE reports a case of diabetes insipidus occurring in a man sixty-six years of age, in which the fluid extract of ergot, in daily doses of from one-half to two drachms, was administered for eleven days, without producing any improvement, when the drug had to be discontinued on account of the unpleasant sensations attributed by the patient to its use.

**THE ETIOLOGY AND PATHOLOGY OF DUPUYTREN'S CONTRACTION OF THE FINGERS.**—Dr. W. W. KEEN (*Phila. Med. Times*, March 11, 1882), for the first time analyzes the heretofore recorded cases of such finger-contraction. He finds, as to the age of onset, that 37 of 44 cases occurred after thirty years of age; 106 males were attacked, to 20 females; 18 had manual occupations, to 54 non-manual; the right hand was attacked 59 times, the left, 49; the thumb was affected 9 times; the forefinger, 13; the middle finger, 45; the ring-finger, 88; the little finger, 87; and the ring and little fingers together, 65 times. In one-third of the cases it was hereditary, extending even to four generations; and 42 were gouty, to 6 who were not. He points out the impossibility of the palmar cords being the flexor tendon, because the sheath would resist such elevation of the tendons, because the attachment of the flexor tendons to the further phalanges should flex them before the first phalanx became flexed, which is not the case; and the cord is not always in the middle line of the finger, as it should be, were it the tendon. He attributes the cords not only to the fascia itself, but to the fibres running from it to the skin, and to the flexor sheaths, and to the fibres of Gendy, as the French call them, the strong, transverse band of fibres at the level of the web of the fingers. He describes also, as usual, two bands of the fascia running to the thumb, one of transverse fibres from the base of the forefinger, and one of longitudinal fibres from the fascia, and equivalent to a fifth digital tongue. This fascial connection is the cause of the not very rare thumb contractions.

The early writers all considered the disease traumatic in its origin, but, with many modern writers, he believes that while a few cases may possibly arise from injury, yet the vast majority are due to a gouty predisposition, or some similar constitutional vice, and gives strong reasons in support of this view. He points to the late age of onset; its appearance in women; the non-manual occupation of most of the patients; the invasion of the left hand, and of the less used ulnar fingers; the appearance of the deformity even at birth, and the ab-

sence of any inflammatory appearances, as strong and convincing arguments against its supposed traumatic origin. In a future paper, he will discuss the treatment of the deformity.

**CUTANEOUS MYOMA.**—MM. BRIGIDI and MARCACCI conclude from an elaborate statistical study of myoma of the skin:

1. Dermatomyoma, of eruptive forms, develop usually in middle age.

2. They are usually multiple, and occur particularly in the mammary region, in the arms and forearms, and on the upper part of the trunk.

3. They are ordinarily of small size, as large as the head of a pin; rarely as large as a cherry.

4. They appear as prominent, smooth, hard, rosy patches on the surface of the skin.

5. They usually cause acute subjective symptoms.

6. Their progress is slow, and not much modified by therapeutic measures, though Virchow reports improvement under the use of compresses moistened with chlorhydric ether.—*Ann. de Derm. et de Syphilog.*, Feb. 25, 1882.

**NEPHRECTOMY: DEATH FROM UREMIA.**—LÜCKE (*Deutsche Zeit. f. Chirg.*, xv. S. 518) performed nephrectomy on a man aged sixty for carcinoma of the kidney, the patient dying four days after the operation. The autopsy showed primary carcinoma of the kidney, carcinomatous thrombosis of the renal vein, which was torn away in the operation, the rent being closed by a thrombus of the vena cava. The lateral branches of the vena cava were greatly dilated, but there was no hæmorrhage into the cavity formed in the operation. The left kidney was contracted, and the seat of cystic disease. The profuse bleeding which occurred from the torn vena cava during the operation was controlled by compression for a few minutes, and had no influence in producing a fatal termination. No peritonitis occurred in spite of the prolonged manipulation in the abdominal cavity, death following from the diseased condition of the remaining kidney.—*Centralb. f. d. Med. Wissen*, Feb. 4, 1882.

**TREATMENT OF SYPHILIS BY HYPODERMIC INJECTION OF PEPTONATE OF MERCURY.**—Considerable attention has been drawn to this subject by the investigations of M. Martineau. The subject has been recently further studied by Dr. O. GOURGUES, who draws the following conclusions from his results:

1. Peptonate of mercury is an unreliable preparation, is easily decomposed, and often causes considerable local disturbance.

2. The albuminate of mercury, prepared according to the following formula, is easily administered, and is not followed by any local inflammation: *R.* Bichloride of mercury, 1 gramme; distilled water, 20 grammes. Dissolve; then add 20 grammes of white of egg dissolved in 20 grammes of water; agitate the precipitate, and add 2 grammes of chloride of sodium dissolved in 60 grammes of water; agitate and filter, and add enough water to the filtrate to bring the weight up to 130 grammes. This solution contains 1 centigramme of albuminate of mercury in 1.30 grammes of solution; a dose suitable for hypodermic use.

3. Six to eight injections of 1 centigramme of this albuminate of mercury usually rapidly moderate the secondary symptoms of syphilis, and in three cases there was no return of the symptoms in four months.

4. Gastric and buccal disturbances have not been met with; in twenty-six cases there occurred no instance of stomatitis, and in only one case, that of a pregnant woman, was there any intestinal action.

5. By means of this method, topical applications are

not required for such manifestations as mucous patches, papules, psoriasis, etc.—*Bull. Gén. de Thérapeutique*, Jan. 30, 1882.

**SPLENIC ABSCESS SUCCESSFULLY TREATED BY PUNCTURE AND DRAINAGE.**—At the meeting of the Calcutta Medical Society, January 10, 1882, Dr. WALLACE read the notes of this case. Dipo, a Hindoo female, about twenty-two years of age, suffering from loss of appetite, constant lassitude, and marked emaciation; she noticed also that her menses ceased to appear, so that it is now two years since their abeyance. A couple of months before her admission into hospital, she was troubled with diarrhoea, and occasionally the alvine discharge was largely intermixed with mucus and some blood.

On admission her condition was as follows: Emaciated, anæmic, and feeble looking; pulse small and regular; tongue clean, moist; abdomen somewhat enlarged, left hypochondrium especially; spleen found much increased in size, its margins easily traceable, and reaching to a point an inch to the right of the median line and down to the umbilicus, its lower edge coming as far as the anterior upper spine of the ileum; the organ was tender on pressure, but quite hard. There was no enlargement of the liver, nor could any pain or tenderness be elicited by palpation over any other part of the abdomen; the heart and lungs were healthy.

*Subsequent Progress and Treatment.*—For a whole month the patient's symptoms, though somewhat relieved, were materially unaltered. On the 23d the fullness and bulging were more decided, and over a circumscribed area of about two inches distinct fluctuation was felt, and the presence of fluid diagnosed. A fine exploring trocar was plunged into the swelling, at a point about an inch below the ninth left costal cartilage, giving exit to an ounce of thick, sanguinolent pus. The instrument was withdrawn, and a large-sized trocar was pushed into the abscess cavity, evacuating its contents, which measured quite eight ounces of similar pus. A stream of weak carbolic water was now injected into the cannula, through which, while it was still *in situ*, a caoutchouc drainage-tube was passed into the abscess cavity, being made to retain its position by means of a probe, while the cannula was now removed without disturbing the tube. Boracic ointment and carbolic gauze dressing were applied. The operation was followed by complete relief from pain, the temperature became normal, and for the first two days the discharge of pus was so copious as to thoroughly soak the dressings, and any pressure on the tissues surrounding the drain caused a very free welling up of matter. On the tenth day the dressings were removed entirely, the temperature was again normal, and has remained appreciably so ever since. There is a visible improvement in the patient's general health, for, though she is still weakly and thin, yet she suffers no further pain; has had no fever for ten complete days; her bowels are regular, and the motions quite natural; she sleeps and eats well, and besides looking cheerful, is able to move about the wards very comfortably. The size of the spleen is still above normal, but the contraction it has so rapidly and steadily undergone is remarkable, considering its former dimensions. As the patient's health improves, there is little doubt that her menstrual functions will also be restored.

This case is of interest for its rarity, and perhaps also for its success and rapid recovery. Only a very few cases of simple acute splenic abscess are on record, and, though cases of acute and chronic inflammation of the spleen are constant enough in every one's practice, suppuration is an almost unlooked-for sequel to these changes. It will be observed that there is a history of dysentery in this case, but Dr. Wallace doubts if the



casual occurrence of such slight dysenteric symptoms which never assumed the chronic form had anything to do with suppuration in the spleen, though the frequent association and dependence of the latter upon the former in chronic dysentery and hepatic abscess is a matter that is accepted without any doubt. Incision and free drainage with antiseptic dressings and absolute rest, constitute seemingly the proper methods of dealing with such a case.—*Indian Med. Gaz.*, Feb. 1, 1882.

**PERISTALTIC RESTLESSNESS OF THE STOMACH.**—Prof. KUSSMAUL, by peristaltic restlessness, means the very marked wave-like movements of the whole stomach, which are only quieted when the stomach is completely empty of food. They are best observed in greatly-dilated stomachs with hypertrophied muscular walls, in cases of cicatricial contraction of the pylorus or duodenum. The excessive muscular action of the stomach is only an endeavor to overcome the mechanical obstruction. Sometimes it appears that similar movements may be neurotic, and not due to mechanical obstruction. He gives the case of an elderly nervous woman, in whom sorrow had caused diminished appetite, constipation, and slow wasting for two years and a half. Then, in consequence of the misuse of purgatives, she got dyspepsia. There were never any symptoms of ulceration. On examination there were observed a low and subvertical position of the stomach, moderate dilatation, and excessive peristaltic movements. In considering these three points, Kussmaul observes that with a pylorus at the normal height the deepest part of a stomach of normal size may descend below the umbilicus, and take the appearance of a loop of intestine. Such a depression of the stomach often leads to the incorrect diagnosis of dilatation when splashing, cooing, or slapping noises are present. These must not be confounded nor considered as of the same meaning. Splashing noises occur when water and air are shaken together by movements either of the whole body or of the stomach alone. Cooing and slapping noises are best produced when the stomach only contains air, and when the abdominal wall at the epigastrium is quickly protruded and retracted by the patient himself, or pressed in several times successively by the physician. Cooing and slapping noises do not justify diagnosis of dilatation of the stomach, and even when splashing noises occur below the umbilicus, dilatation can only be diagnosed when simple depression of the stomach can be excluded. The vertical position of the stomach, however, always disposes to dilatation. With regard to the entrance of bile into the stomach, the author observes that in washing out the empty stomach the water is often found to be tinged with bile. In other persons who also suffer from nervous or catarrhal dyspepsia without contraction of the pylorus or duodenum, bile is never found in the stomach in the morning. The reason why bile in some persons almost-always passes into the stomach, is probably to be found in a difference in the formation and position of the pylorus and duodenum. The reason why bile passes more easily into the empty than into the full stomach is probably that in the empty stomach the circular muscular fibres of the pylorus are relaxed. When carbonic acid is generated by an effervescing powder in the empty stomach it passes very quickly into the intestines, provided there is no organic closure of the pylorus or duodenum. This incontinence of the pylorus is purely physiological. The author is unable to say whether the peristaltic restlessness in his patient continued during the night. Peristaltic movements of the stomach are abnormal when it is empty, and at no time should they be consciously perceived by healthy persons; whereas, in the case just mentioned, the feelings of movement and contraction were very disagreeable.

Despite this restlessness there was constipation. The restlessness is especially marked in those cases of dilatation of the stomach where the vomited matters contain much acid. This fact suggests that the acid of the fluid contained in the stomach stimulates the peristaltic movements. Peristaltic restlessness is connected with conditions of the nervous system like those nervous termina so frequent in hypochondriacal and hysterical patients.—*Volkmann's Sammlung Klinischer Vorträge*, No. 181, in *Praktischer Arzt*.—*Practitioner*, March, 1882.

**SPOILED MAIZE AND PELLAGRA.**—Dr. LOMBROZO has recently studied the causative relations between spoiled maize and pellagra, and the results of his experiments appear to confirm the prevailing opinion that pellagra results from the use of spoiled maize as food. The active agent is not, however, as previously supposed, the corn smut or *sencilium glaucum*, but an extractive principle existing in the spoiled corn itself, for which he proposes the name of pellagrozeine. As regards the treatment of pellagra, Dr. Lombrozo's experiments show that there is no specific remedy for the disease. He has seen good results follow the use of opium in cases where there is much mental excitement; quinia is valuable where there is prostration; and calomel, arnica, and cold douche in diarrhoea. He has also used arsenic in severe cases with improvement.—*Revue Scientifique*, Jan. 28, 1882.

**TWO CASES OF HYDATIDS OF THE PERITONEUM SUCCESSFULLY TREATED BY ABDOMINAL SECTION.**—Mr. LAWSON TAIT read a paper on this subject at the meeting of the Midland Medical Society, on Feb. 1. In the first case, the operation was incomplete, because the hydatid had so matted the intestines together that the larger number could not be removed. All the cysts which could be reached were broken down, and a drainage-tube was inserted in the pelvis from above. The patient's symptoms previous to the operation were very severe, but they rapidly disappeared. The patient completely recovered, and the hydatid masses had entirely gone when she left the hospital, on the twenty-fourth day after the operation. The second case was of a more simple kind, for the parasites were contained in a cyst in the lower abdomen, which was completely emptied and drained through the wound. The patient made an easy, rapid, and complete recovery.—*Med. Times and Gaz.*, March 11, 1882.

**DRAINAGE OF THE PERITONEAL CAVITY.**—KEHRER, of Heidelberg, discusses the various means for removing fluid from the peritoneal cavity after ovariectomy. He suggests capillary drainage as the most effective. Some narrow pieces of carbolyzed cotton cloth are put into an India-rubber or Koeberle's drainage-tube, and the end brought so low down outside the body, although still within the antiseptic dressing, as to have somewhat of a syphon action. He details a case where this method was used with success and was found more effective than the ordinary methods.—*Centralb. für Gynäk.*, Jan. 21, 1882.—*Glasgow Med. Journ.*, March, 1882.

**LAPAROTOMY FOR FIBRO-MYOMA OF THE UTERUS.**—This operation was performed on February 9, in the San Giovanni Hospital of Turin, by the Surgeon-in-Chief, Dr. F. MARGARY, under the antiseptic method. The tumor was a large one, and was removed, after ligation with two constrictors, by amputation near the internal os, as in the process of Porro. A second fluctuating mass remained in the utero-rectal pouch, which it was not thought prudent in the condition of the woman to remove. Unfortunately a hæmorrhagic, and probably septic, peritonitis caused the death of the woman on the fourth day.—*Gazzetta Degli Ospitali, di Milano*, Feb. 26, 1882.

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## THE RELATIONS OF LOCOMOTOR ATAXIA AND SYPHILIS.

OF the many disputed points which, a quarter of a century ago, engaged the attention of the profession, but which the progress of medical science, and especially the increased frequency and exactitude of pathological research, have effectually disposed of or reconciled, none are of greater interest than those relating to that most distressing and intractable of maladies, locomotor ataxia. The differing or opposing views of Romberg, Remak, Spaeth, Duchenne, Landry, Trousseau, Benedikt, and others, have been gradually subjected to a process of critical analysis, by means of which much that was then doubtful or entirely false as regards the site and character of the essential lesion and the interpretation of the various symptoms has been rejected, the disease has become capable of accurate definition and classification, and its recognition by the general practitioner in one of its several stages is now a matter of daily occurrence.

With its symptoms and pathology, therefore, we need not long delay. The constant presence, as the specific lesion of the malady, of a hyperplasia of the neuroglia of the posterior columns of the spinal cord, followed by atrophy and degeneration of the nerve elements or, in other words, of spinal sclerosis, most marked below, but often advancing gradually until the brain is reached, is now universally admitted. The symptoms, first of irritation of the posterior or sensory spinal nerves, the fatigue after moderate exertion, rheumatic or neuralgic pains, abnormal sexual impulses, vesical irritability, cutaneous hyperæsthesia, etc., followed by those of temporary or permanent paralyzes of sensation, absence of

the patellar reflex, anæsthesia of the skin, impotence, incontinence of urine, amaurosis and deafness, and finally by the characteristic loss of muscular co-ordination without paralysis, the staggering, uncertain gait, the inability to maintain equilibrium, the dependence upon the sense of sight for recognition of position, all these are, as has been said, well-recognized evidences of the disease. Their association with and relation to the sclerotic condition are also so unmistakable in the light of our present knowledge of the physiology of the cord that they require no comment.

As regards etiology, prognosis, and treatment, however, the questions of supreme practical importance, it cannot be said that equal advances have been made or that the same unanimity of opinion exists.

Aitken, Niemeyer, Wunderlich, Trousseau, Bartholow, Flint, Roberts, and many other medical writers coincide in the opinion that treatment has been unsatisfactory, and although advocating certain therapeutic measures, do not heartily endorse them or claim to have obtained satisfactory results in any large number of cases.

Faradization and galvanism, rest, the cold bath, flagellation, nitrate of silver, morphia, belladonna and turpentine, the bromides of sodium and potassium, phosphorus and the phosphides, chloride of barium, ergot, and sulphur baths, are among the remedies which have been thus employed with no uniform success.

The possible causes which may produce the sclerosis and to which it has been assigned, are very numerous, the principal being hereditary tendency, previous spinal shock, injury, or inflammation, over-exertion, rheumatism, gout, exposure to cold or wet, sexual excess, alcoholism, scrofula, and syphilis.

It may be said, however, that, with possibly one exception, no such definite association has yet been shown to exist between locomotor ataxia and any of these conditions as to furnish satisfactory reasons for considering them as usually related, or as to supply reliable indications for treatment.

The views taken by the distinguished authors above mentioned as to the probable cause and termination of any particular case are exceedingly grave and discouraging, but they nearly all agree in making an important exception in favor of ataxia of syphilitic origin, in which cases we are told that "we may hope for the best results."

This is, of course, what might be expected from the well-known amenability of syphilitic lesions to properly directed treatment, whenever such treatment is applied before actual destruction or disintegration of tissue has taken place.

It would thus seem that the point of chief importance in the future study of locomotor ataxia, that

which indeed overshadows all others in its practical value, is the relation of this disease to syphilis. In its non-specific varieties it is admitted by the majority of authors to be but little if at all benefited by treatment, while, on the other hand, those cases in which the association with syphilis has been so distinct as to lead to the employment of specific treatment have been found to do well.

If, therefore, it can be shown that in the *majority* of cases ataxia is of syphilitic origin, and that the spinal changes upon which it depends are due to previous syphilis, the influence of the application of these facts to prognosis and to treatment becomes evident.

Here, however, excellent authorities differ; Duchenne calls attention to syphilis as, in certain cases, the "only reasonable or apparent cause of the ataxia;" Schultze expresses himself in a similar manner; Vulpian states that it is "no exaggeration to say, that of twenty patients attacked with locomotor ataxia there are at least fifteen who are old syphilitic subjects." Erb observed antecedent syphilis in twenty-seven out of forty-four cases, sixty-seven per cent.; and Gowers believes that "syphilis must be regarded as the cause of locomotor ataxia in one-half of the cases of that disease." On the other hand, Westphal, Remak, Julliard, Bernhardt, and Broadbent have failed to observe so large a proportion of syphilitics among their ataxic patients, and to a greater or less extent reject this theory of the disease.

Authorities upon both sides might be multiplied, but we shall now only be able to allude to the views of M. Alfred Fournier which he has recently expressed at great length with his customary accuracy and clearness of observation and induction.

Having first reviewed the objections which are urged against the syphilitic origin of ataxia, and shown that the changes which take place in the cord are in no wise distinguishable from those produced elsewhere by syphilis; that the comparative inefficacy of specific treatment is due to its postponement until a period when irremediable tissue changes have occurred; that the association of the two diseases is so nearly invariable as to preclude the possibility of its being an accidental one, he having observed syphilis in 94 out of 103 cases of ataxia; and that, although the syphilitic forms of the malady have no absolutely distinctive symptoms, yet that the same is true of specific epilepsies, paraplegias, and other manifestations of nervous syphilis, he proceeds to state the following reasons for believing that the *great majority* of cases of locomotor ataxia are of distinctly syphilitic origin:

1. The significant frequency, already mentioned, with which the diseases are found to be associated.
2. The almost exclusive development of ataxia in

the tertiary period of syphilis; out of 85 cases of ataxia observed in syphilitic subjects, in 81 the disease developed in the fourth year of the syphilis, in 3 in the third year, and in only 1 in the last month of the second year.

This extraordinary regularity in the date of its occurrence, is inexplicable on the theory that it is derived from some cause independent of syphilis, the association with the latter disease being merely an accidental one. If that were the case, it is difficult to conceive why it should not at least occasionally be met with in the secondary or primary stages.

On the other hand, its appearance at that epoch is conformable with the general system of evolution of syphilis, which does not, as a rule, produce its visceral complications for some years after the primary contamination.

3. The frequent similarity or identity of ataxic symptoms with those long known to be characteristic of syphilis, as, for example, paralysis of the cranial nerves, and even of the same pairs, the optic and oculo-motor; hemiplegias, epileptiform and aphasic attacks, etc.; progressive general paralysis, a not uncommon sequel of ataxia, is also a frequent and incontestable symptom of syphilis.

4. The beneficial influence exercised by specific treatment, which he claims to have used in many of his cases with the result of dissipating isolated symptoms, arresting or "immobilizing" the disease, and in some cases causing its complete and permanent disappearance.

5. The coincident development during the course of the ataxia of undoubted syphilitic symptoms, among which he mentions various ulcerative syphilides, gummata, exostoses, necroses, caries, etc.

6. The impossibility, in many cases, of finding any other imaginable cause for the production of the disease.

These statements of Fournier are, perhaps, not yet to be regarded as conclusive, but are worthy of thoughtful consideration, and if not refuted or overthrown by future investigations, will afford certain valuable guides to treatment, in regard to which the deductions to be drawn might be summarized as follows:

In every case of ataxia, careful and minute search should be made for evidences of antecedent syphilis, either acquired or inherited.

If this be found to have existed, the patient should be placed at once upon vigorous specific treatment, and should be directed to continue it through long periods.

If only a fair presumption of previous syphilis exist, the same treatment should be employed, as it would, at the most, be useless, not hurtful.

If the disease be recognized in its earliest stages, and found to be associated with syphilis, and treated



in this manner, a prognosis may safely be given of a more favorable character than at present seems justifiable in any other variety or under any other mode of treatment.

Finally, the best prophylactic treatment of locomotor ataxia would consist in the thorough and long-continued use of specifics during the different stages of syphilis, even in the absence of characteristic symptoms.

#### THE LAMSON CASE.

CASES of violent death, both homicidal and suicidal, have become alarmingly frequent within the last few years; and among these cases death by poison occupies a prominent position. Without bestowing particular notice upon the several important instances that have occurred in our own country, we would refer now more particularly to the recent English case—that of Dr. Lamson, which has excited so much attention both in Great Britain and the United States.

Unfortunately for the credit of the medical profession, the criminal is a graduate of one of our own medical schools, and was formerly an office pupil of a well-known practitioner of this city. He is, moreover, very respectably connected, his father being an Episcopal clergyman, residing at Florence, Italy.

The facts brought out in the course of this trial afford a good illustration of the prominent points connected with every toxicological case, although these may not always be as sharply defined as in the present instance.

The doctrine has not unfrequently been maintained that, unless the existence of the alleged poison can be positively established by chemical analysis, there is not sufficient proof of the crime; in other words, that the production of the suspected poison, in some form or other, through chemical reagents, is essential to prove the reality of the poisoning. This doctrine we hold to be both erroneous and dangerous; it is unsound in theory, as well as in practice. We need only remind the reader that there are a number of organic poisons which chemistry, with all its splendid advances, has not yet been able to identify—*aconitine* among the number. Various causes may interfere to prevent the most skilful analyst from detecting a poison after death, such as the loss of the substance by vomiting and purging, its possible decomposition in the body (if organic), its disappearance from the stomach by absorption, and its entire elimination from the system if death should be delayed for any length of time. How dangerous and unscientific, then, is the theory that would exclude from the list of fatal poisons those deadly substances of the vegetable and animal kingdoms, simply because of the unavoidable failure to detect them by chemical analysis! We hold, on the contrary, that when all the

other links in the chain of evidence are perfect—such as the symptoms, the *post-mortem* lesions, the physiological tests and the moral proofs—then the chemical evidence is not required to establish “satisfactory proof” of the poison.

The correctness of this view is, we think, abundantly demonstrated by the circumstances of the Lamson case, in which there was no *chemical* proof whatever of the alleged poisoning, but where the guilt of the accused seems to be abundantly established by the other factors of the evidence, especially the physiological proofs and the proofs from circumstances. The former of these (the evidence from experiments on animals) is, in certain cases, of paramount importance. In the celebrated case of De la Pommerais, of Paris (1863), this, along with the moral proofs, constituted the main reliance of the prosecution in establishing the guilt of the prisoner. It will be remembered that *digitalin*, the agent employed, had only lately been discovered, and was but little known; but the identity of the results obtained by administering to dogs and rabbits the extract procured from the body of the deceased, with the effects of pure *digitalin* on the same animals, left no doubt of the actual identity of the two substances. So, in the Lamson case, the chain of evidence connecting the accused with the crime of aconitine poisoning seems to us to be sufficiently conclusive, although lacking the one link of the actual *chemical* demonstration, and for the reasons above given. First, we have the  *motive*, powerful and pressing. The accused was in great pecuniary straits; he was bankrupt, in fact. He had assumed false titles, and qualifications and decorations. On the death of his victim (his brother-in-law) he would, through his wife, come into possession of some fifteen hundred pounds. Then the *opportunity* was most favorable. The poison was administered at different times under the guise of medicine and sugar. Furthermore, the *purchase* and actual *possession* of aconitine were clearly proven; and, on one occasion, a very close connection between the purchase of the poison and the administration of a powder, or pill, which occasioned symptoms of aconitine poisoning.

Among the effects of the deceased were found a number of *quinine* powders, sent to him by the accused, all containing aconitine—one of these over eight-tenths of a grain; and one-fiftieth of a grain of this powder killed a mouse in a few minutes.

But the physiological proofs are still more satisfactorily shown by the action of the extract procured by Stäs’ process from the vomit, which produced the characteristic tingling and benumbing feeling upon the lips and tongue of several persons who tasted it, and lasting over six hours, and which, when injected under the skin of a mouse, killed it

in a quarter of an hour. Dr. Stevenson considered that the vomit contained as much as a quarter of a grain of the poison. The liver, kidneys, spleen, contents of the stomach, and urine all yielded unequivocal evidence of the presence of aconitine, as shown from the peculiar effects upon the tongue and lips of the experimenters, and also from the fatal results on mice when injected hypodermically. The extract from the urine, when thus injected, destroyed a mouse in thirty minutes. In all the above experiments the results were verified by similar trials with specimens of pure aconitine.

Of course, the defence could not contradict such powerful proofs except by raising the extremely doubtful question of *cadaveric alkaloids* or *ptomaines*, as they are called, which have been alleged to be produced in the body after death. But so little is as yet known of these substances, if they exist at all, and so protean do they appear to be in their characters—simulating different vegetable alkaloids under different circumstances—that it really seems like the drowning man catching at a straw, to attempt to rebut the positive repeated physiological evidence of the presence of aconitine by such very uncertain and undemonstrated allegations.

We think that Dr. Stevenson and his colleague, Dr. Dupré, are to be congratulated on the skilful and scientific manner in which they conducted their examination of this most interesting case; and we may remark, in closing, that we can hardly suppose that the most rigid antivivisectionist would cavil at the propriety, not to say the absolute duty, of experimenting on the lower animals in order to arrive at the truth, in a case involving the life or death of a human being.

#### A NEW SIGN OF CONTUSION OF THE CORD.

DR. GUINOISEAU has observed a case of contusion affecting the inferior portion of the cervical cord in which there were notable modifications of the cardiac movements. After all other symptoms had subsided, it was observed that the rhythm of the pulse was singularly altered. On the 8th of October, when the first observation was made, the pulse was 49 whilst the patient was in the recumbent posture, 73 when he sat up, and 100 when he stood erect. On the 1st of November the pulse was 45, 51, and 77, according to position, and six months afterward it was 45, 62, and 88, respectively.

As Dr. Guinoiseau remarks, it has been known since the time of Gallois that the state of the spinal cord influenced the heart's movements. In 1863, Von Bezold demonstrated that after section of the cord between the occiput and atlas, excitation back of the section, quickened the beats. Cyon has also proved that there are sympathetic filaments going from the cord to the heart, excitation of which causes

increased action of the heart. It has also been found that wounds and contusions of the cord in its upper part cause slowing of the pulse, and of the inferior part of the cord, a more rapid action. Whence Dr. Guinoiseau concludes that concussion of the inferior part of the cervical cord causes an irregularity of the cardiac rhythm, as observed in the case reported by him. Further observations, however, are necessary. One clinical case—the boundaries of the injury being indefinite—will not justify such positive deductions.

#### WHAT BYSTANDERS SHOULD DO IN CASES OF SUDDEN UNCONSCIOUSNESS.

To supplement the editorial in our last issue, entitled "Drunk or Dying," we lay before our readers, by request, some observations on what may be done by bystanders in cases of sudden unconsciousness.

A crowd should not be permitted to close around and exclude the air from the unconscious person. The cravat and all tight clothing about the chest and abdomen should be loosened. The head should be elevated a little and the neck kept straight to facilitate breathing. Are the pupils minutely contracted, the pulse very feeble, the rate of breathing slow, the skin cool, wet with sweat, and the face pale, the case may be one of opium poisoning and the indication is to keep up the breathing.

If the same general condition is produced by overexertion in the heat, the pupil dilated, the case is one of heat exhaustion, and a stimulant is needed.

If the surface is hot and dry, the breathing hurried and irregular, the pupil contracted, and the pulse rapid, this condition induced by great exertion in high temperature, the case is one of heat-stroke, sunstroke, or heat fever. Such an unconscious person should be removed to the shade at once, clothing removed, and the surface doused with cold water or rubbed with ice.

If the breathing is heavy, the pulse full and not rapid, the skin warm and perspiring, the face bloated, reddish or purplish, the eyes bloodshot, the pupils moderately dilated, and the breath that of a toper, the case is probably one of alcoholic intoxication. As in this condition apoplexy may occur, or pneumonia, or acute congestion of the lungs be induced, such subjects should be cared for by removal to a bed, by warm covering, and attention at the time of sobering.

If the breathing is deeply snoring, or stertorous, irregular, the pupils unequal and dilated, the eyes turned toward one side, the face rather flushed, the eyelids swollen, the lips puffing out at each expiration, and the surface at ordinary temperature, the case is probably one of hæmorrhage into the brain or apoplexy. Such a person should be moved as

gently as possible, the head should be kept elevated, the feet hanging down, and all obstructing clothing about the neck and abdomen should be removed.

It does not seem to be generally known that excellent results have been obtained recently from the application of powdered chlorate of potassium to epithelioma. The surface of the ulcer should be well cleansed, and finely powdered chlorate thickly dusted on it, and be allowed to remain until the next dressing. The application may be made twice a day, the surface being cleaned before reapplying the powder. This treatment is said to relieve the pain, to change the character of the morbid process, and promote healing. The same application may be used in chancre, chancroid, and in unhealthy ulcerations generally, and it has the merit of safety.

THE subject of disinfection must always possess a present interest. As our knowledge of the nature and transformations of disease germs grows, their destruction becomes more and more an important element in prophylaxis. In the articles on this subject, completed in our present issue, the various agents employed in disinfection are discussed. Whilst the basis principles have not been overlooked, practical details have been fully set forth. With this information before him in a compact form, no physician need be at a loss how to deal with germs and decomposition products, whether flying in the air, or lurking in the mass of liquids and solids.

WE are glad to see that Dr. Horace Y. Evans, the lately-elected President of the Philadelphia County Medical Society, is continuing the occasional simple receptions to the members. We have too little of this social life among us doctors, and the late President, Dr. Albert H. Smith, did a good service to the profession in inaugurating such reunions in the County Society—a custom which his successor does not mean to let die. The entertainment, we are very glad to see, is very inexpensive, and we should greatly regret to see its narrow limits insensibly enlarge, lest the Presidency of the Society should become at once an honor and a burden.

WE find the following quotation in Harper's "Drawer," from an account of a recent funeral in Chicago: "The burial casket was made to conform, as far as possible, with the comfort the occupant was wont to surround himself with in the home he left." Mark Tapley himself, in his wildest endeavor to "come out strong" in adverse circumstances, could not exceed that, we are sure.

## SPECIAL ARTICLE.

### DISINFECTION.

#### II.

##### OF SOLIDS AND LIQUIDS.

AERIAL disinfection, although highly useful, does not accomplish the important results obtained from the action of disinfectants on solids and liquids. The complexity of the results renders any classification of disinfectants attacking putrescible matters, extremely difficult. It will serve our purpose, however, to group them in four classes:

1. Agents which change the form of the noxious substances.
2. Agents which combine with and fix in an unchangeable form the products of decomposition.
3. Agents having the power to arrest fermentative processes.
4. Oxidizing agents.

These forms or groups of disinfectants are not always clearly separable, and many of them act in several modes, but they are here grouped in accordance with their most distinctive properties.

1. *Fire* is the agent, above all others, to effect the destruction of noxious materials. Whenever circumstances will permit, this radical measure should be employed to destroy the contagium of variola, scarlatina, diphtheria, etc., which may be adherent to bedding and clothing. The materials to be burned should not be consumed in the open air, since the strong currents thus engendered may carry up the germs of disease, and deposit them at a distance unharmed, as has happened in some instances.

The *mineral acids* are also destructive agents. Sulphuric chars or carbonizes; nitric oxidizes and changes the fundamental structure; muriatic also burns and decomposes. They seize the water of organic matter, combine with any bases present, and coagulate albumen. All the lower forms of life are at once destroyed by them. It follows that they are effective agents, but difficult to handle. As they destroy the texture of clothing, carpets, bedding, etc., as well as the disease germs adherent to them, they cannot be employed in the sick-room or hospital ward. Acting on marble and the metals, and also staining and injuring woodwork, they cannot be used to disinfect water-closets. *Sulphuric acid* is, however, a cheap and effective disinfectant for organic matter not enclosed in vessels, and for common cesspools. Thus the walls and floor of a cellar may be well sprinkled with the common acid, and a layer of half an inch poured over the top of the contents of a privy vault.

2. Those agents which combine with the products of decomposition and fix them in an unchangeable form, are more important than the preceding. *Iodine* and *chlorine*, already referred to, belong in this group. Iodine, in solution in alcohol, is an effective agent for fixing the disease germs, and for deodorizing the stools of typhoid, dysentery, and the infectious maladies in general. A teaspoonful of the tincture will be a sufficient quantity for an ordinary evacuation. It is too expensive an agent, however, for ordinary purposes.



The *liquor sodæ chlorinatæ* of the U. S. Pharmacopœia, commonly known as Labarraque's solution, and consisting for the most part of hypochlorite of sodium, is an elegant disinfectant for use in the sick-room, but is also rather expensive. Undiluted, it may be used to disinfect vomited matters, sputa, stools, and urinary discharges, and can be employed in house closets, drains, etc. A tablespoonful to an alvine discharge, four to eight ounces at a time, and daily, for the water closet, are suitable proportions. Cloths moistened with the solution, and hung up, will give off chlorine for aerial purification. Much cheaper, and equally effective, is the well-known "*chloride of lime*." This consists of quicklime, to which much chlorine adheres, of hypochlorite of lime, and of chloride of calcium. In the air it gives off chlorine slowly, and when an acid is added, abundantly. Dry chloride of lime may be freely scattered over cellar floors, and the walls washed with a solution (five pounds to a gallon of water). This solution can be utilized for the disinfection of stools, closets, etc., and for washing solid articles of furniture, the floors and walls of apartments which have been occupied by cases of contagious diseases.

The *chlorides*, *nitrate*s, and *sulphates* are efficient members of this group. All the world knows of the preservative properties of common salt. The most powerful of the chlorides is *chloride of zinc*. This may be most cheaply prepared by dissolving commercial zinc in common muriatic acid, to saturation. One part of this solution to four parts of water, is sufficiently strong for most purposes. The official solution of the chloride of zinc (*Liquor zinci chloridi*, U. S. P.) contains 180 grains of the chloride to a fluid-ounce of water. Burnett's disinfecting fluid contains 200 grains to the ounce. This solution has long been celebrated for its power to destroy foul odors, and to arrest putrefactive changes in organic substances. It is, also, largely used as an injection for preserving anatomical material. Being free from odor, and also powerful as a deodorizer and a disinfectant, it possesses great advantages. If the official "*liquor*" is employed, a suitable proportion is four ounces to a gallon of water, for washing floors, furniture, and walls of an infected house. To disinfect stools, vomit, etc., a teaspoonful of the "*liquor*" will suffice for each, and a tablespoonful for an ordinary water-closet with contents. Other chlorides are combined with zinc chloride—for example, manganese, magnesia, iron, and sodium chlorides. As the zinc chloride is most powerful, no advantage is gained by the combination.

The *sulphates* used are, sulphate of iron (copperas), sulphate of copper (blue vitriol), and sulphate of zinc (white vitriol). Of these, unquestionably, the most useful is sulphate of iron, as it is also the cheapest. Common commercial copperas is the kind of sulphate of iron used for disinfecting and deodorizing. A saturated solution (about four pounds to a gallon of cold water) is used for close-stools, water-closets, etc., and the powder is most efficient for the privy, and for solid decomposing organic matter. A pint of the solution should be poured into the water-closet every two days, and the surface of the contents of

a privy vault should be well covered with the powder, two or three times every week.

Sulphates of zinc and copper act in the same way as the iron salt, but are much more expensive. A solution, at one time very much used in France, and known as the *antimephitic water* of Larnaudès, consisted of a mixture of sulphate of zinc and sulphate of copper in solution—23 parts of zinc sulphate, and 2 parts of copper sulphate, and 975 parts of water. This solution, compared with a corresponding solution of sulphate of iron, was found to be more effective than the latter. Besides these salts, sulphate of alumina is used as a disinfectant, and for the preservation of anatomical material. It is inferior to the chloride of zinc, but compares favorably with the metallic sulphates. A saturated solution—two pounds to two quarts of water—will suffice for the usual disinfectant and deodorant applications.

The nitrate used for disinfectant purposes is *nitrate of lead*. In the proportion of one-fourth by weight, in solution, it constitutes the disinfectant liquid of Ledoyen. This preparation has proved to be very efficient as a deodorizer and disinfectant. Like the other members of the group, nitrate of lead combines with the changing and decomposing organic matters, arrests action of all kinds, destroys the germs, and decomposes the gaseous products of putrefaction. Like the chloride solutions, the nitrate of lead solution can be employed to rid the air of the gaseous and formed particles coming from a contagious disease, or from decomposing organic substances. A tablespoonful of the solution above mentioned will prove sufficient to deodorize an ordinary evacuation, and four ounces will usually suffice for the disinfection of a water-closet, but it must be repeated on alternate days. To disinfect the air of an apartment, cloths, moistened with the solution may be hung up at several points.

Considered from all points of view, of the various substances belonging to this group, common sulphate of iron must be regarded as the most useful for the disinfection of solids and liquids. It must be remembered, however, that its action does not persist longer than thirty-six to forty-eight hours, when the application must be repeated.

3. The third group, composed of agents having the power to arrest fermentative processes, includes many of those already considered. There are, however, several agents closely allied, having certain special properties, by reason of which they are classed together. This group, called *antiseptic*, contains carbolic acid, creosote, salicylic acid, boracic acid, benzoic acid, thymol, menthol, eucalyptol, resorcin, chinoline, etc. To these may be added certain essential oils—of gaultheria, cloves, peppermint, and thyme; and also alcohol, chloral, turpentine, etc. We can here consider only those available for disinfection.

Carbolic acid has occupied a very prominent place as a deodorizer and disinfectant, but its own diffusive and powerful odor is a strong objection to its employment. As the *impure carbolic acid* is equally as effective and much cheaper than the pure acid, it is now used preferably. For the disinfection of water-closets, privies, drains, and solid organic sub-

stances undergoing decomposition, the undiluted impure acid may be employed. For washing the walls and furniture of infected apartments, the solution used should not be less, certainly, than one per cent. The power of carbolic acid to destroy the germs of putrefaction, and possibly the germs of disease, is well established; but the strength of the solution effective for this purpose has not been definitely ascertained, although the minimum is, as above stated, not less than one per cent. There are serious objections to the use of concentrated solutions: the odor becomes almost insupportable; the vapor, continuously absorbed for some time, may induce slow poisoning.

The other agents belonging to this group possess considerable importance as antiseptics in the treatment of fever and other septic processes; but they are too expensive and are otherwise unavailable as disinfectants. It may be stated, however, that the essential oils above mentioned, dissolved in alcohol, may serve a useful purpose as deodorants and disinfectants. The alcoholic solution may be pulverized by an ordinary atomizer, such as are used for spraying perfumes, and the air of the apartment thus kept full of the minutely divided disinfectant oil. Such alcoholic solutions may be used to deodorize offensive discharges, when the more effective but disagreeable agents are repulsive.

4. The class of oxidizing agents contains a number of useful and active disinfectants. Finely pulverized *dry earth*, free from vegetable matter, has a very powerful effect. A layer, several inches in thickness, of earth on fecal matter will entirely destroy the odor, and in time deprive it of all fecal characteristics. Earth effects the oxidation of the gases retained in its interstices by adhesion. *Charcoal* acts similarly. The gases of putrefaction are absorbed by it, and slowly undergo oxidation. Liquids and soft solids are also acted on in the same way. Boxes of charcoal placed at the orifices of the sewers of London effectually deodorize, and to a considerable extent destroy the noxious constituents of sewer gas. Such materials are, however, not useful as true disinfectants. They may deodorize, but they do not destroy the *materies morbi*, the germs of diseases. Chlorine, iodine, and bromine, are held to be oxidizing disinfectants, because they seize the hydrogen of water and set free the oxygen as active oxygen. The bleaching and deodorizing property of chlorine is referred to the oxygen liberated in the active state, or as ozone. Enough has been said, however, in regard to the action of these substances.

A saturated solution of *bichromate of potassium* (1 part to 10 of water) is an active oxidizing disinfectant, but the action is brief. When added to decomposing organic matters, a part of the oxygen is given off and the salt is reduced to sesquioxide of chromium. Four ounces of the saturated solution should be used daily for the disinfection of a water-closet, and a corresponding quantity for the close-stool. It is, however, too expensive, relatively to the effectiveness, to be employed largely.

*Potassium permanganate* is an elegant oxidizing disinfectant, but rather expensive. A solution in the

proportion of a drachm to four ounces of distilled water is an efficient deodorizer and disinfectant of the sputa, urine, and stools of infectious cases. This solution pulverized by the spray douche, is an excellent means of aerial purification in the same class of cases; but it is too expensive to be used on a large scale, and, indeed, is less active than some other agents now available for disinfection of large masses of decomposing materials.

**SUMMARY.**—It may be useful now to indicate the place occupied by the several substances employed as disinfectants, and the selection which should be made for special purposes.

For the air of the apartment occupied by the sick, iodine in substance, or the tincture, placed in some convenient situation and kept constantly in action; or cloths well moistened with the solution of chlorinated soda, or of chloride of lime in solution, or of chloride of zinc solution hung up in the apartment.

For the halls and rooms other than those actually occupied by the sick, for bedding and clothing which have been used by the sick, sulphurous acid, or chlorine disengaged from chloride of lime by action of an acid, or obtained in other ways.

For washing the solid articles of furniture, the walls, floors, etc., solution of zinc chloride, of sulphates, of carbolic acid, etc.

For the sputa, urine, and stools of contagious cases, iodine tincture, solution of zinc chloride, of carbolic acid, and of permanganate of potassa.

For sewers and privy vaults, sulphate of iron in powder.

## REVIEWS.

THE DETECTION OF COLOR-BLINDNESS AND IMPERFECT EYESIGHT BY THE METHODS OF DR. SNELLEN, DR. DAAL, AND PROFESSOR HOLMGREN. Arranged for the Anthropometric Committee of the British Association for the Advancement of Science. By CHARLES ROBERTS. 8vo, pp. 16. London: David Bogue, 1881.

The Anthropometric Committee are quietly but most thoroughly doing a work, which, in time, and by very accretion, becomes more and more important. The labor already accomplished in the mere matter of measurements of the human body, and especially through the energetic efforts of Mr. Roberts, is enormous and extremely valuable, not only to the Anthropologist but to many others, ranging from the practical life insurance actuary to the aesthetic student of artistic proportion.

In the present excellent booklet of 16 pages they give simple but exact directions for testing the accuracy of vision and the color sense by non-experts, for the purpose of gathering together a large mass of material on which to base their conclusions. The text has nothing peculiar about it, unless it be its simple clearness; but the inside cover pages are both valuable and ingenious. On the cover page facing the title are six test types, a set of army test dots, and two barred letters for astigmatics. The third cover page is the most ingenious. It has let into it a sheet of leather with holes punched in it so that it resembles the card-board used by ladies for worsted work. Into these are

sewed ten lines of colored worsteds with seven sets of color in each line. The idea is very simple, ingenious, and practical. Nothing better could be devised, especially for the purpose in view. It is quite worthy of being a "Yankee notion." The cover itself is both striking and useful, being in three horizontal boards of red, green, and violet.

**LECTURES ON THE DIAGNOSIS AND TREATMENT OF DISEASES OF THE CHEST, THROAT, AND NASAL CAVITIES.** By E. FLETCHER INGALS, A.M., M.D., Lecturer on Diseases of the Chest and Physical Diagnosis, and on Laryngology in the Post-Graduate Course, Rush Medical College, etc. With 135 illustrations, pp. 437. New York: William Wood & Co., 1881.

Turning to the preface for the motive of the book, we find that "these lectures are designed to present a complete exposition of the subject of physical diagnosis so far as it relates to diseases of the chest, throat, and nasal passages; to give the essential symptoms of each disease; to point out the symptoms and signs which are of most value in a differential diagnosis; and to outline briefly the proper treatment for the various affections." Whilst, on the whole, the book is fairly well done, it is far from the completeness indicated in the outline sketched in the preface. The first eight lectures are occupied with the subject of physical diagnosis, in which we note many minor inaccuracies. The succeeding lectures are occupied with the various thoracic, cardiac, laryngeal, pharyngeal, and nasal diseases. There is a very good account of the instruments and methods of laryngoscopy and rhinoscopy. The definitions and symptomatology of diseases are generally quite insufficient, often inaccurate. Proper names are sometimes sadly mutilated: for example, Dr. Noel Gueneau for Dr. Noel Gueneau de Mussy. Authors are mentioned by name in the text, but there are no references to the publications. On page 86, mention is made of Fraentzel, Wintrich, Traube, Flint, and Da Costa, and yet there is not a single reference to the source of the opinions quoted. The same fact holds good throughout the whole work.

It must be said of the work that it is clear, and comprehensive. It may be a useful book to put in the hands of those commencing the study of these subjects, for although there are mistakes and inaccuracies, they are not of a very flagrant description. The mechanical execution of the work is tolerable. The illustrations are borrowed for the most part without acknowledgement, except the reference in the preface to the works of Cohen, Mackenzie, and Browne. The paper is coarse, the type worn but not indistinct, and the whole aspect cheap; but as this is one of the chief recommendations of this series, the effort must be regarded as successful.

**A MANUAL OF DENTAL ANATOMY, HUMAN AND COMPARATIVE.** By CHARLES S. TOMES, M.A., F.R.S., with 191 illustrations. *Second Edition.* 8vo, pp. 440. Philadelphia: Presley Blakiston, 1882.

The second edition of this manual has been revised and partially rewritten, and, although the arrangement remains substantially the same as before, some new matter will be found incorporated in the text. The enlarged type and increased number of illustrations add much to the appearance of the book, which, although compiled to a considerable extent from other sources, contains much original and valuable material.

## CORRESPONDENCE.

### APOMORPHIA IN CONVULSIONS OF CHILDREN.

*To the Editor of THE MEDICAL NEWS:*

I beg leave to report, in a condensed form, my treatment of three cases of general clonic convulsions in children, with hypodermic injection of apomorphia, and ask the opinion of others in regard to this treatment, who have had a larger clinical experience with the drug.

**CASE I.**—Male, *æt.* eighteen months, bottle-fed from birth, but previously as healthy as children so fed usually are, was seized suddenly one morning with general clonic convulsions, affecting, in turn, almost every muscle of the body. I arrived one-half hour afterwards, and found the child in a tub of hot mustard-water, which did not seem to give any relief. The face was livid, pulse too rapid and irregular to count, breathing very labored and insufficient on account of spasms of the respiratory muscles. Deglutition was impossible, and enemata were not retained. Chloroform inhaled gave relief while under the full influence of it, but the spasm returned as soon as anæsthesia became less profound. I then injected one-sixteenth grain of apomorphia dissolved in water. Getting but very little relief, in twenty minutes I injected another one-sixteenth grain. Relief followed shortly afterwards, and no symptoms of a return for seven days, but bromide of potassium was administered regularly, and when another convulsion was evidently coming on, a good dose of chloral was given. Symptoms of basilar meningitis soon developed, for which the child was treated, and he died at the end of eighteen days, evidently from exhaustion. Consciousness returned fully for two or three days after the first spasm ceased.

**CASE II.**—Male, *æt.* five years, was taken at 9 o'clock in the morning with severe general clonic convulsions, in all respects similar to Case I., save that the tongue was more severely bitten, and bled profusely. I saw him two hours afterwards, during which time the spasm had not ceased for a moment. Seeing that death would soon supervene unless relief was given, I at once injected one-eighth grain of apomorphia into the arm, and repeated it in thirty minutes. Relief speedily followed, consciousness returned in the course of the day, but an inclination to drowsiness continued for several weeks. Ordinary remittent fever set up, but the child was fully convalescent at the end of two months.

**CASE III.**—Male, *æt.* three years and six months, had been ill one week with light attack of pneumonia, was taken at midnight with general clonic convulsions, in all appearances the same as in the previous cases. Through a miscalculation in the hurry of the moment, I injected one-fourth grain of apomorphia into the arm. Very little relief following, I repeated the dose in thirty minutes, and soon the child was perfectly quiet and put to bed. As the case belonged to another physician, I had him called in the morning, and saw the case no more. I learned that consciousness returned the next morning, and the parents thought the patient better, but the child developed a slight meningitis, and died one week afterwards in a second convulsion.

One singularity of these cases was that there was no vomiting in either of them, and only slight nausea for awhile in Case II. Cases I. and II. were attacked shortly after eating a hearty breakfast. The question arose in my mind, is there a peculiar tolerance to apomorphia in cases of this nature? Authors tell us that one-sixteenth of a grain, hypodermically, is sufficient to produce emesis in the adult. Neither the pulse nor the respiration were affected in any great degree by the apomorphia. I would like to hear from others who



have had experience in this use of the drug. Is it justifiable or advisable to use it in such cases? Was there a possibility of the large doses setting up the meningitis? or was it only an apparent meningitis, and really the lingering effect of the drug? One thing certain, I shall never inject half a grain into another child's arm, unless I make a mistake, or find good authority to do so. But Bartholow tells us that death is produced by paralysis of the heart's action and arrest of respiration, so it is evident that it did not kill either of my patients in that way.

Quinia was administered in large doses in all the cases, together with other ordinary treatment used in meningitis. Very truly yours,

F. JACKMAN, M.D.

INDIANAPOLIS, IND., March 20, 1882.

## NEWS ITEMS.

### BALTIMORE.

(From our Special Correspondent.)

**THE MEETING OF THE MEDICO-CHIRURGICAL FACULTY.**—The eighty-fourth annual session of the Medical and Chirurgical Faculty of Maryland will be held at Baltimore, in Hopkins Hall of the Johns-Hopkins University, beginning Tuesday, April 11, at 12 M., and continuing about four days. The Faculty was incorporated in 1799, and for many years was the licensing board for practitioners. A decision of the Court of Appeals, however, deprived it of the right to control medical practice, since when the Faculty has taken the place of a State medical society. Of late years its sessions have been of constantly increasing influence and interest. The present session promises to be of especial importance. The proceedings will open with the address of the President, Prof. Frank Donaldson. It is understood that the question of higher medical education will form the subject of Prof. Donaldson's remarks. Reports of various officers, committees, and sections will follow. The annual oration is appointed for Thursday, 13, at 12 o'clock. The orator, Dr. A. M. Fauntleroy, late Superintendent of the State Insane Asylum, at Staunton, Va., has chosen as his subject, "Reciprocal Influence of Morbid Physical and Psychical Conditions on the Nervous System." The subject is one of absorbing interest, and the orator is well qualified to handle it. A number of interesting volunteered papers will be read, the subjects of which have not as yet been announced. A large attendance of members from the various counties is expected.

### CINCINNATI.

(From our Special Correspondent.)

**MEDICAL COLLEGE COMMENCEMENTS.**—The colleges of this city have concluded their winter sessions, and held their commencement exercises. The past year has been an unusually successful one as regards the number of students and of graduates. The Medical College of Ohio added 104 to its alumni, the Miami Medical College 41, and the Cincinnati College 16.

It is understood that the last-mentioned institution has been conducted for some years at a considerable pecuniary sacrifice. The majority of the professors, not relishing an entire winter's work, with the privilege of paying dearly for it at the end, have resigned their positions. The longing for professional position is, however, so deeply rooted in the medical heart, that probably very little difficulty will be experienced in finding others ready to take the vacant chairs.

**AFTERNOON SESSIONS.**—The Cincinnati Medical Society has taken a new departure in fixing upon an after-

noon hour for its future sessions. The attendance since this change was made has not justified the expectations of those who favored the plan, and it is believed that this action will soon be reconsidered.

**PRIZE FOR ORIGINAL INVESTIGATION.**—At its last session the Academy of Medicine decided to offer, annually, a gold medal, or its equivalent, fifty dollars in money, to that member, who, during the year, should present to the Society a paper representing the most valuable original investigations. The award is to be made by a standing committee appointed especially for this purpose.

### VIENNA.

(From our Special Correspondent.)

**ELECTRO-ENDOSCOPY.**—Dr. MIKULICZ, who has recently been engaged in œsophagoscopy and gastroscopy with the electro-endoscope, has petitioned the Minister of the Interior, through the Medical Faculty, for a special department in the Allgemeine Krankenhaus for these investigations. The petition has been graciously received, and, if granted, will make Vienna still more attractive to foreign students.

**SOUNDING THE URETERS OF THE FEMALE BLADDER, WITHOUT PREPARATORY OPERATION.**—Dr. Pawlick, Universitäts Docent, formerly an assistant of Dr. Carl Braun, read a paper, recently, in Salzburg, upon this subject. He found that when a woman was placed in the knee-elbow position, and the posterior vaginal wall was drawn upwards, compressing the rectum, by means of a Sim's speculum, the trigonum vesicæ and the entrance places of the ureters were plainly visible. It is then not difficult, with a specially designed catheter, to sound the ureters.

Dr. Pawlick demonstrated his proposition upon two women, whom he brought with him. He was able, in both cases, in a short time, to sound the ureters with perfect safety.

**TETANUS PUERPERALIS: CURARE.**—Von Kulen, of Salzburg, recently had a patient, twenty-one years old, primipara, whom he delivered with forceps. On the second day after delivery, febrile symptoms were observed. On the eleventh day, trismus was noted, which was followed by tetanus. On the thirty-third day, after the tetanic symptoms had moderated somewhat, the woman died of peritonitis. To combat the tetanus, chloral hydrate and curare were employed. The latter remedy, subcutaneously injected, had a happy effect to this extent, after its use, the tetanic convulsions always became much less violent for a period of from four to five hours.

**ACQUIRED HÆMATOKOLPOS.**—Prof. C. v. Braun brought before his class, a few days since, a woman with a somewhat anomalous affection. The woman, twenty-one years old, a native of Galizien, had been delivered, four months previously, of a healthy child; the puerperal process was protracted and severe. When she had fully recovered, and was again restored to life and health, her husband found the vagina had disappeared. His discovery was confirmed by Dr. Braun's examination before the class. The introitus vagina was entirely closed by a membrane of cicatricial connective tissue. Examination, per rectum, revealed an empty uterus, and the portion of the vagina above the membrane filled with about one-third litre of menstrual blood. In this manner, an acquired hæmatokolpos simulated very closely the congenital affection.

The condition is easily explained, when we consider that rents in the vagina, where there is such a rich formation of connective tissue, can readily heal in such a manner as to produce complete occlusion of the canal. The treatment of the case was very simple, consisting

in scarification of the membrane, and in its removal by the fingers.

Dr. Braun said that, up to the present time, he had operated upon some ten cases of congenital hæmatokolpos, but had never seen such a case as the present one, and indicated, by this fact, its rarity.

PROF. KLEBS has recently received a call from Prague to Zürich. Klebs is now in Zürich negotiating, but has not yet decided to give up his chair in the Czechische University. The Bohemian students in Prague have held meetings, beseeching the Professor to remain. Prof. Breisky, one of Klebs's most powerful opponents, is vehement in his denunciations of the germ theory generally, and of its Prague exponent in particular. A Vienna weekly journal summarizes the matter thus:

"After all, we believe that Klebs, who finds neither support with the Direction of the University, nor with his colleagues, neither with the students, nor with the medical societies, neither with the great public, nor with the press, will not let pass by such an opportunity to leave a university which, with the possible exception of pecuniary recompense, offers to him no satisfaction or happiness."

DECIDUAL HÆMORRHAGE.—Dr. Carl Braun recently related the following history of a case in his lying-in ward: A woman, of middle age, six months advanced in her first pregnancy, while at work in her kitchen, was suddenly astonished by a severe hæmorrhage from the genitals. From the sudden occurrence of a large hæmorrhage, the conjecture that it came from the larger vessels was admissible. The blood itself was perfectly pure and unmixed with vaginal mucus. It is possible to affirm, positively, that the hæmorrhage came from the uterine mucous membrane, out of the decidua, rich in bloodvessels, and was due to a displacement between the decidua reflexa and vena. Digital examination showed the placenta, attached to the posterior wall of the uterus, approaching the position of placenta prævia. As the latter condition occurs so much less frequently in primiparae than in multiparae, it need not be considered in this connection. The treatment was expectant; its important feature, perfect rest. The opinion that decidual hæmorrhage will return every month, during pregnancy, is entirely erroneous.

JEFFERSON MEDICAL COLLEGE.—At the annual meeting of the Board of Trustees of the Jefferson Medical College held on March 29th, the following letter from Prof. S. D. Gross was presented:

To the President of the Honorable Board of Trustees of the Jefferson Medical College:—

DEAR SIR—Advancing age and a desire, after a laborious professional life of fifty-four years, to spend the remainder of my days in comparative repose, induce me to ask your board to accept my resignation of the Chair of Surgery which, by a unanimous vote, they did me the honor to confer upon me twenty-six years ago. During this long period it was my good fortune to be associated with learned, distinguished, and honorable colleagues, who always received my earnest co-operation and support in every measure designed to advance the best interests of the school, and to maintain it in that lofty position which it is universally acknowledged, both at home and abroad, to occupy.

In severing my relations with you and with my associates, I desire to assure you that I shall ever feel a deep interest in my Alma Mater, and pray that she may continually advance in prosperity and influence, and be in all time to come an honor to her founders, to the various faculties that have ministered at her shrine, and to the Trustees who have, in successive stages of her career, so wisely shaped and controlled her desti-

nies. I lay down the robes of office not without regret, but with clean hands and with the consciousness that in all my teachings, extending in different schools over a period of forty-eight years, I was ever governed by an eye single to the welfare of my pupils, and the honor and dignity of my profession.

I am, dear sir, very respectfully, your friend and obedient servant,  
S. D. GROSS.

At the conclusion of the reading of the letter, the following resolutions were adopted by the Board:

*Resolved*, That, in consideration of the long and continued faithful services of Dr. S. D. Gross, he is hereby elected Emeritus Professor of Surgery of the Jefferson College.

That the Board of Trustees, while regretting its necessity, feel bound to recognize the reasons assigned by Dr. Gross for his resignation, and therefore accept the same.

Nominations to fill the vacancy caused by the resignation of Prof. Gross were then in order, and Dr. S. W. Gross and Dr. J. H. Brinton were named and unanimously elected—Dr. Gross to the chair of Principles of Surgery and Clinical Surgery, and Dr. Brinton as Professor of the Practice of Surgery and Clinical Surgery.

Dr. Samuel W. Gross was born in Cincinnati in 1837, and graduated in medicine in the Jefferson Medical College in 1857. He served with distinction in the medical corps of the army during the late war. He is the author of a valuable work on the Tumors of the Mammary Gland, and of a Treatise on Impotence and Sterility, and has been a frequent contributor to our periodical literature. His papers on "Gunshot Wounds of the Bones and Joints," "Wounds of the Internal Jugular Veins," "Ulceration of the Veins," and on "Digital Compression in the Treatment of Aneurism," are familiar to surgical readers.

Dr. Brinton was born in Philadelphia, and received a liberal education at the University of Pennsylvania. He subsequently studied medicine at the Jefferson School, from which he graduated in 1852. In 1861 he entered the army as a surgeon of volunteers, and served with distinction until 1865, when he tendered his resignation to resume his private practice in Philadelphia. Dr. Brinton's contributions to surgery have been characterized by practical knowledge and sound judgment. His exhaustive paper on amputation at the knee-joint is constantly quoted by surgical writers.

These selections may be considered as extremely judicious, and calculated to maintain the honor of the chair which has been successively rendered lustrous by the teachings of McClellan, Mütter, and the elder Gross.

THE PUBLIC HEALTH.—For the week ending March 25, the following additional items are given. From *small-pox* there were 15 deaths in New Orleans; 5 each in the District of Columbia and Richmond, Va.; 4 in Hudson Co., N. J.; and none in Brooklyn, but 5 new cases were reported. From *cerebro-spinal meningitis*, 5 deaths in Hudson Co., N. J.; 1 in Wheeling, W. Va.; and 6 in Buffalo. *Diphtheria* caused 15 deaths in Brooklyn; 3 in the District of Columbia; 5 in Detroit, where there were 23 new cases; 3 in Hudson Co., N. J.; and 1 each in Buffalo and Omaha, Neb. Brooklyn reports 11 deaths from *croup*; Hudson Co., N. J., 8; and the District of Columbia, 1 death. From *typhoid fever* there were 2 deaths each in Brooklyn, the District of Columbia, and Buffalo; 4 in Hudson Co.; and 1 in Wheeling, W. Va. There was no marked change in the mortality from *scarlet fever* in Brooklyn, the deaths being 29 as compared with 26 for the preceding week. There were 13 deaths from this cause in Hudson Co.; 5 in Buffalo; 1 in Detroit, and 14 new cases; and 1 in Vicksburg.

From *measles*, 6 deaths in Brooklyn; 3 in Hudson Co.; and 1 each in Buffalo and Detroit. There were 4 deaths from *whooping-cough* in Brooklyn. *Consumption* caused 29 deaths in Brooklyn; 21 in the District of Columbia; 4 each in Hudson Co., and Detroit; 3 each in Richmond, and Wheeling, W. Va.; 2 in Buffalo; and 1 in Vicksburg. There were 58 deaths from *acute lung diseases* in Brooklyn; 17 in Hudson Co.; 15 in the District of Columbia; 18 in Buffalo; 6 in Richmond; 3 in Detroit; 2 each in Omaha and Salt Lake City; and 3 in Davenport.

The mortality returns of a number of prominent places for the week ending April 1 furnish the following facts:

**Small-pox.**—The marked diminution in the number of deaths from small-pox in Cincinnati, published last week, seems not to have been an indication of a rapid decline of the epidemic, since the deaths this week, 37, exceed those of any of the preceding eight weeks. There were 12 deaths in New York City; 4 in Philadelphia; 8 in Pittsburg; 5 in St. Louis; 4 in Dayton; and 2 in Memphis. There were 3 new cases in Boston, 20 in Chicago; and 30 new cases in Pittsburg. The whole number of deaths in South Bethlehem, up to and including the 4th of April, has been 66. 149 cases are still under treatment. The vaccination of immigrants arriving at the port of Philadelphia from Liverpool, who have not been properly protected, has been conducted during the past few weeks. In one or two instances small-pox has developed after the vessel had left the foreign port.

**Cerebro-spinal Meningitis.**—Only five among seventeen prominent places report deaths from this cause. They are as follows: New York City, 7; Philadelphia, 5; Cincinnati, 2; Chicago, 4, and Memphis, 1.

**Croup.**—This disease caused 29 deaths in New York City; 9 in Philadelphia; 3 in Boston; 3 in Cincinnati, 5 in Chicago, and 1 each in Providence and Dayton.

**Diphtheria.**—An increase in the number of deaths from diphtheria is noticed in New York City, Philadelphia, Boston, and Cincinnati. The returns for the week are as follows: New York City, 44; Philadelphia, 13; Boston, 8, and 18 new cases; Pittsburg, 3; Cincinnati, 4; Chicago, 6; St. Louis, 2, and New Haven and Wilmington, Del., each 1 death.

**Scarlet Fever.**—No marked change is noticed in the mortality returns from scarlet fever. The deaths were as follows: New York City, 73; Philadelphia, 6; Pittsburg, 3; Boston, Chicago, and Cincinnati, each 2; St. Louis, 4, and Providence, 1.

**Typhoid and Typhus Fevers.**—There were 3 deaths from typhoid fever in New York City, the same as in the preceding week; 17 in Philadelphia, where the disease is quite prevalent; 3 each in Boston and Cincinnati; 4 in St. Louis; 5 in Chicago; 2 each in New Haven, Indianapolis, and Wheeling, W. Va., and 1 each in Louisville, Providence, Wilmington, Del., and Memphis. There were 3 deaths from typhus fever in New York City.

**Malarial Fever.**—New York City reports 7 deaths from malarial fever; Chicago, 3; Philadelphia and St. Louis, each 2, and New Haven, Indianapolis, and Memphis, each 1.

**Measles and Whooping-cough.**—But few deaths are reported from these diseases except in New York City, where the former disease shows a tendency to increase. From measles there were 44 deaths in New York City, as compared with 24 the previous week; 6 in Chicago; and 2 deaths in Philadelphia. From whooping-cough there were 19 deaths in New York City; 2 in Philadelphia; 3 in Boston; 3 in Chicago; and one 1 each in Pittsburg, Cincinnati, Nashville, and Augusta.

**Consumption and Pneumonia.**—The deaths from consumption were as follows: New York, 109; Philadelphia,

70; Boston, 36; Cincinnati, 21; Chicago, 25; St. Louis, 23; Louisville, 10; Providence, 9; Indianapolis, 7; Wilmington, Del., and Milwaukee, each 6; Nashville, 5; Augusta, 3; Jacksonville, Flo., and Memphis, each 2; and New Haven, Dayton, O., Portland, Pittsburg, and Wheeling, W. Va., each 1. From pneumonia there were 95 deaths in New York City; 32 in Philadelphia; 23 in Boston; 8 in Cincinnati; 8 in Pittsburg; 25 in Chicago; 14 in St. Louis; 7 in Louisville; 6 in Milwaukee; 5 in Providence; 4 in Nashville; 3 in Portland; 3 in Indianapolis; and 1 each in New Haven, Wilmington, Del., Dayton, O., Augusta, and Wheeling, W. Va.

**Erysipelas.**—Only 7 deaths occurred during the week from this disease in a population of over 2,800,000; 5 of these took place in New York City; and 1 each in Boston and St. Louis.

**VITAL STATISTICS OF NEW YORK CITY FOR 1880.**—The total number of deaths in New York City in 1880 amounted to 31,937, of which 16,831 were of males, and 15,106 were of females. Natives of the United States numbered 20,947, and of foreign countries 10,990. There were 692 deaths among the colored population. The annual death-rate per 1000 was 26.47. By far the greatest number of deaths in any one period of life occurred among infants in their first year, the number amounting to 8725, or 27.32 per cent. of the total mortality. Under two years there were 11,726 deaths, and under five years 14,650 deaths. It thus appears that 45.87 per cent. of the whole number of deaths for 1880 occurred among children under five years of age.

The deaths from *zymotic diseases* amounted to 9573; from *constitutional diseases*, 6974; from *local diseases*, 12,122; from *developmental diseases*, 1949; and by *violence*, 1319. The most prominent cause of death was consumption, the mortality from this disease alone being 4706, or 14.73 per cent. of the whole number of deaths. Next in order follows pneumonia, with 2822 deaths; and then Bright's disease and nephritis, with 1418 deaths; diphtheria, 1390; bronchitis, 1375; membranous croup, 910; and convulsions, 731 deaths.

Of the zymotic diseases, diphtheria was the most fatal, and membranous croup the next so; the aggregate mortality from these two diseases being 2300. Scarlatina caused 618 deaths; measles, 479; small-pox, 31; whooping-cough, 277; erysipelas, 171; typhus fever, 3; typhoid fever, 241; cerebro-spinal fever, 170; malarial and simple continued fevers, 470; and quinsy, 16.

Diarrhoeal diseases, which include cholera infantum, cholera morbus, diarrhoea, dysentery, entero-colitis and diarrhoeal colitis, and gastro-enteritis, caused 3947 deaths, or 12.36 per cent. of the total mortality. There were 2788 deaths from diseases of the brain and nervous system. By sun-stroke there were 116 deaths; by suicide, 152; and by drowning, 238.

The deaths for the year 1880 were 3,595 in excess of those of the preceding year, and the death-rate was considerably higher than the average of the previous four years. Of the 31,937 deaths, 17,816 were reported in tenement-houses, and of this number 10,101 were under 5 years of age. In houses containing less than 4 separate families there were 7,538 deaths; of this number, 2,999 were under 5 years of age. It is a significant fact that 56.69 per cent. of the total mortality in tenement-houses occurred among children under 5 years of age, while the percentage of deaths of children under 5 years of age to the whole number of deaths occurring in houses which contain less than 4 families was only 39.79.

The greatest monthly mortality occurred in June, July, December, and August, in the order named; and

<sup>1</sup> Houses containing more than 3 independent families; houses containing less than 4 separate families are classed as private.



the least mortality in February, January, March, and September. Zymotic diseases were most prevalent in June, July, and August. Local diseases caused most deaths in April, May, June, and December, while constitutional diseases were quite evenly distributed among the twelve months.

The number of births reported during the year was 27,536, which is estimated to be about 75 per cent. of the number actually occurring. Of this number, 27,174 were white, and 362 colored; 14,356 were males, and 13,179 were females, and the sex of one was not reported. The place of nativity of 11,388 mothers and of 8,624 fathers was the United States; that of 426 parents was either unknown or not given, and the remaining 34,634 parents were born in foreign countries.

The number of marriages registered during the year was 9,002, which is estimated to be about 80 per cent. of the number that took place. Of this number, 211 males and 201 females were colored, and 10 white women married colored men. The brides born in the United States numbered 5,004, and the grooms 4,174.

The whole number of still-births registered amounted to 2,362, of which 1,285 were males, and 1,060 were females: the sex of 17 was unknown or not given.

We are indebted to John T. Nagle, M.D., Deputy Register of Records, N. Y., for a copy of the report from which the facts above given have been gleaned.

**HEALTH IN MICHIGAN.**—The State Board of Health Bulletin for the week ending March 25th, 1882, states that pneumonia, membranous croup, intermittent fever, influenza, measles, rheumatism, bronchitis, tonsillitis, whooping-cough, and mumps, have increased in area of prevalence. No marked decrease in area of prevalence occurred in any disease reported.

Small-pox was reported at 5 places, as follows: at Geneva, Van Buren County (one new case from Chicago), March 23rd; at Iosco, Livingstone County (one case), March 24th; at Detroit, and at Milford, March 25th; at Grand Rapids, March 28th, 1882.

**NEPHRECTOMY.**—On March 10, Mr. James Adams, at the London Hospital, excised a kidney from an adult male. The symptoms were persistent hæmaturia with pain in the right loin, shooting down the thigh. The kidney was explored for calculus, but none was found, but the greater part of it was occupied by medullary sarcoma. After some difficulty, owing to adhesions, the organ was removed. The case will be published in detail shortly.—*Brit. Med. Journ.*, March 18, 1882.

Mr. Knowsley Thornton removed the right kidney from a young woman at the Samaritan Hospital on March 11th. The case was one of pyonephrosis, and the kidney was incised and drained through the loin for a month before its complete removal was decided upon. The kidney was removed by abdominal section, the incision being made outside the rectus abdominis, as recommended by Langenbuch, of Berlin, in the discussion on Nephrectomy at the Congress. Mr. Thornton found great advantages from this incision, as compared with either the ordinary median incision or the lumbar section. The patient was progressing very satisfactorily four days after the operation, there having been less fever and constitutional disturbance than there often is after an ordinary ovariectomy. The patient from whom Mr. Thornton removed an extra-uterine foetation by abdominal section at the Samaritan Hospital a fortnight ago is quite convalescent.—*Med. Times and Gaz.*, March 18, 1882.

**MASSACHUSETTS GENERAL HOSPITAL.**—Dr. John Homans has been appointed Visiting Surgeon to the Massachusetts General Hospital, to fill a vacancy caused by the resignation of Dr. Samuel Cabot.

**CHICAGO MEDICAL COLLEGE.**—Dr. Oscar C. DeWolf has been elected to the Chair of State Medicine in the Chicago Medical College.

**COLOR BLINDNESS.**—A joint resolution was introduced during the present session of Congress authorizing the President to appoint some person suitably qualified to attend any international congress in any European country for determining uniform standards of examination for color blindness and test for visual acuteness in persons employed in the navy and merchant marine, as recommended at the last meeting of the International Congress.

**HARVARD UNIVERSITY.**—Dr. F. L. Knight has been appointed Assistant Professor of Laryngology; Dr. Wm. L. Richardson has been appointed Assistant Professor in Obstetrics; Drs. Chas. B. Porter and John Collins Warren have been appointed Assistant Professors of Surgery in Harvard Medical College.

**BALTIMORE ACADEMY OF MEDICINE.**—At the annual meeting of the Baltimore Academy of Medicine, held March 7, the following officers were elected for the ensuing year: President, Dr. J. C. Thomas; Vice-President, Dr. J. A. Steuart; Recording and Corresponding Secretary, Dr. B. B. Browne.

**MEDICAL COLLEGE COMMENCEMENTS.**—The Third Annual Commencement of the Fort Wayne College of Medicine, Indiana, was held on March 1; fifteen degrees of Doctor of Medicine were conferred.

The Annual Commencement of the Jefferson Medical College was held in Philadelphia on March 30, and the degree of M.D. was conferred on 247 candidates, which, with a single exception, constituted the largest graduating class this school has ever had. At the same commencement the degree of Doctor of Laws was conferred upon Dr. Thomas Addis Emmet, of New York.

**THE INFLUENCE OF SEXUAL EXCITEMENT ON WOUNDS.**—In a paper recently published in the *Lyons Médicale*, M. PONCET draws attention to the evil effects of sexual intercourse when indulged in during convalescence from injuries, operations, etc., and suggests that this may be a not very unfrequent, though unrecognized, cause of some of the mishaps and complications that occur in private practice. The sexual act produces a certain amount of shock which, M. Poncet thinks, may be placed side by side with traumatic shock, and which leaves the patient for a certain time after indulgence in a condition of "least resistance," during which he is especially susceptible to morbid influences. With regard to the impression produced even in health by the act of coitus, some thermometrical experiments undertaken by an interne of the Lyons Hospital are quoted. A thermometer placed in the rectum was carefully observed on nine occasions; and it was found that the temperature was always from five-tenths to six-tenths of a degree Centigrade (nearly 1° Fahr.) lower just after than before coitus. During the act, the temperature rose slightly above normal. In illustration of his views, M. Poncet gives notes of seven cases observed in his own practice, where complications were ascertained to have followed coitus. Four of these patients had lesions of the hand or finger, and all were going on well up to the time of sexual indulgence, which was quickly followed by pain and swelling of the injured part in one case, and in three others by inflammation of the lymphatics, which went on to suppuration in two. In another case, chronic tetanus was attributed to the disturbing effects of coitus, and in yet another the non-union of a fracture. In the latter case, union took place

when the man was removed from his mistress, who had been nursing him. In the seventh case, pyæmia and death are referred to a similar cause. The patient had undergone amputation of the thigh for an injury, and was in the country away from any known septic influences. The wound was healthy and granulating, when, on the eighteenth day after the operation, he had intercourse. Rigors quickly followed, and death occurred five days later. A somewhat similar case is mentioned on the authority of Ollier. Although these cases are all surgical, M. Poncet also refers to the adverse influence of sexual excitement in some other diseases, notably diabetes and gout.—*British Med. Journal*, March 18, 1882.

**A RARE FORM OF VASCULAR DISEASE.**—At the consultation at St. Bartholomew's Hospital, on the 2d inst., Mr. THOMAS SMITH was able to exhibit an instance of an extremely rare form of disease. The patient was a young woman, about nineteen years of age, who presented an abnormality of the circulation of one hand and forearm, which is best classed, perhaps, under the head of aneurismal varix; she could hardly be said to suffer from the condition, as she had been able to discharge her duties as a domestic servant until her comfort was interfered with by a somewhat persistent hæmorrhage from the site of a small abscess in one finger. Large pulsating vessels having the distribution of the veins were to be seen on the back of the hand; the pulsation was accompanied by a purring thrill and a loud buzzing murmur. There were two points about the case which gave it a peculiar interest; first, that there had been no known injury which could have caused a direct communication between the arteries and the veins; there had been, it is true, a severe burn of the hand in early childhood, but there was no reason to suppose that the vessels were especially damaged. The case thus appeared to be an instance of spontaneous aneurismal varix. The second point of interest was that the thrill and loud buzzing murmur were very plainly to be observed in the brachial artery at the bend of the elbow, and in all the arteries of the forearm. These latter vessels all appeared to be enlarged; and these facts led Mr. Smith to suggest that the case had some analogy to the aneurisms by anastomoses commonly seen on the scalp, and that the free communication between the arterial and the venous circulation of the forearm was effected by way of the much-enlarged capillary vessels. In whatever way the case be regarded, it is of singular interest, and probably almost unique.—*British Med. Journal*, March 18, 1882.

**THE MEDICAL SOCIETY OF LONDON.**—The one hundred and ninth anniversary of this Society was celebrated on the evening of Wednesday, the 8th instant, the Fellows dining together in the Victoria Hall of the Criterion Restaurant. The chair was occupied by the President, Dr. Broadbent, who was supported on the right by the President of the Royal College of Surgeons, on the left by Mr. Francis Mason, the President elect. During the evening, the Society's medals were presented to the recipients by Dr. Broadbent—the Fothergillian gold medal, for a dissertation on the Pathology and Treatment of Whooping-cough, to Mr. Dolan, of Halifax; a silver medal to Dr. Allen Sturge, for his paper on Muscular Atrophy; and a silver medal to the retiring Honorary Secretary, Dr. T. Gilbert Smith, for eminent services rendered to the Society.—*Brit. Med. Journ.*, March 18, 1882.

**DISCUSSION ON SCLEROTOMY.**—It has been decided by the Council of the Ophthalmological Society of Great Britain, to hold a discussion on sclerotomy. The meeting will probably be held on June 8.

**UNIFORM NOMENCLATURE OF AUSCULTATORY SOUNDS.**—At a meeting of the Section on Medicine, during the session of the International Medical Congress in London, August, 1881, Dr. Austin Flint, of New York, Prof. Ewald, of Berlin, Prof. D'Espine, of Geneva, Dr. Douglas Powell, of London, and Dr. Mahommed, of London, were appointed a "Committee to report to the Medical Section of the next Congress, on a uniform nomenclature of auscultatory sounds in the diagnosis of diseases of the chest." In behalf of the Committee, the undersigned will be happy to receive any communications relating to the subject of the report.

AUSTIN FLINT,  
Chairman.

418 Fifth Avenue, New York.

**DR. EDWARD WARREN BEY.**—We are pleased to hear that his Highness, the Khedive of Egypt, has created Dr. Warren Bey, the well-known American physician of Paris, a commander of the order of Osmanîé, as a further recognition of his brilliant professional career in Cairo and in Paris.

**BEARING-REINS FOR HORSES.**—*The British Medical Journal* says, apropos of the ignorant and morbid outbreak of sympathy with the woes of Jumbo which has lately afflicted London, Mr. Flower writes to a contemporary that many of the humane folk who went to bid their troublesome pet a last adieu, and do their best to ruin his digestion, were strangely oblivious to the pain that was being suffered by their own carriage-horses. Whilst the humble cab-horses were standing "at ease," with liberty for their heads and necks, most of the carriage horses were tied up so tightly that they could not lower their heads one inch, and with their lips drawn up most painfully from tight bearing-reins. It is, indeed, singular that the perpetual tossing and turning of their horses' heads to get a little relief from the evident pain and discomfort they suffer, does not induce humane and sensible people to abolish the use of these instruments of daily torture.

**WHAT IS SAID ABOUT THE NEW YORK CODE OF ETHICS.**

At any rate, the New York State Medical Society has placed itself in a very unenviable position. We imagine that some of the doctors there must feel the disgrace very keenly.—*Atlanta Medical Register*.

These two clauses [concerning consultations] contain all the originality of the New Code which, with this exception, is but a rehash or an abbreviation of the old; and on these two hang all the law and the profits.—*The Southern Practitioner*.

It looks as if the profession of New York had *out-worn* the Code instead of *outgrown* it. It is hoped in this region that they may reconsider their ill-advised action, and not be lost to their friends and fellows in other States.—*Louisville Medical News*.

The American Medical Association will, of course, justly repudiate the New York Medical Society, and all who yield an allegiance to its recent inexcusable legislation, and the best medical men everywhere will say amen, and amen.—*American Medical Weekly*.

The Code is gotten-up in the interest of the specialists of New York. . . . The time is coming when the barriers between the regular profession and the homœopathic schools will be broken down, but this time will be when the latter have given up their peculiar dogmas and adopted the principles of rational medicine for their guide.—*Pittsburgh Medical Journal*.

The New York State Medical Society has just dropped the time-honored flag of legitimate medicine in the mire, by enacting a law which, for the base reason of money-making, and for nothing else, sanctions consultations with irregular practitioners, when, in such con-

sultations, honorable agreement or honest compromise is impossible.—*Gaillard's Medical Journal*.

Whatever the motive with which it was conceived and executed, we have the clearest conviction of its ill-advisedness and reprehensible character. It will not elevate the standing of the regular profession, whilst it will give credit and respectability to quackery and professional irregularity. Nor can the result, as we believe, be in doubt, since the American Medical Association, backed by all the other State Societies, will be able to maintain an attitude of firmness, and resist the encroachments of the ill-advised and unwarranted authors of such innovations. Encouraged by such support, the better-thinking men of the New York profession will probably band together to form another State society, in affiliation with the National body and its branches, and seeking to elevate rather than pull down the noble profession to which we all feel proud to belong.—*Maryland Medical Journal*.

It seems likely that a medical war of rather large proportions may grow out of this action of the New York Society; but that such a code will ultimately be adopted by medical societies of States containing large cities seems probable, as these always contain numerous specialists, and in their case interest and inclination will tend to make them follow in the footsteps of their brethren of the State of New York.—*Chicago Medical Review*.

How wonderfully changed has the "medical world" become since Dr. Quain threw the bomb into the camp of professional intolerance from the sick-bed of Lord Beaconsfield! Bread and butter has been at stake for some time, and "old-school physic" was ready for surrender. All that was needed was for some "general" to break the ranks and give himself over. See how the rest of the sheep follow!—*The Investigator* (Homoeopathic).

Come on, brethren, the world moves, and old-school medicine is not entirely hopeless.—*St. Louis Eclectic Medical Journal*.

## NOTES AND QUERIES.

### ABSORPTION FROM THE BLADDER.

To the Editor of THE MEDICAL NEWS.

Dear Sir: Having just read your editorial in the journal of Saturday, March 25, on absorption from the bladder, I beg to refer you to an article of mine in the *Southern Journal of the Medical Sciences*, for May, 1867, p. 41, entitled "On the Constitutional Effects Produced by Substances Introduced into the Urethra," in which I mention experiments performed by me in 1857, showing the extreme rapidity with which both morphia and atropia were absorbed by the urethra, in one case all the characteristic symptoms of atropia poisoning being produced in less than a minute.

I remain, dear sir, yours truly,

J. L. CRAWEOM, M.D.

NEW ORLEANS, March 29, 1882.

[The editorial alluded to was not intended to give a complete analysis of the literature of the subject. The interesting results of Dr. Craweom were, however, overlooked unintentionally, as they not only give strong confirmatory evidence of the activity of absorption from the urethra, but locate with great accuracy the position where this occurs most energetically, viz., the prostatic portion of the urethra and neck of the bladder.—ED.]

## OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT, U. S. ARMY, FROM MARCH 28 TO APRIL 3, 1882.

GARDNER, JOHN DEB. W., *Captain and Assistant Surgeon*.—To report in person to the Commanding General, Department of Arizona, for assignment to duty.—*S. O. 71, A. G. O., March 28, 1882.*

GARDNER, EDWIN F., *Captain and Assistant Surgeon*.—To report in person to the Commanding General, Department of the Columbia, for assignment to duty.—*S. O. 71, A. G. O., March 28, 1882.*

ROBINSON, SAMUEL, Q., *Captain and Assistant Surgeon*.—To report in person to the Commanding General, Department of the Columbia, for assignment to duty.—*S. O. 71, A. G. O., March 28, 1882.*

## OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE HOSPITAL SERVICE, FROM JANUARY 1 TO MARCH 31, 1882.

BAILHACHE, P. H., *Surgeon*.—To proceed to Richmond, Va., as Inspector, January 31, 1882.

VANSANT, JOHN, *Surgeon*.—Detailed as President of Board of Survey for the physical examination of officers of the Revenue Marine Service, March 18, 1882.

WYMAN, WALTER, *Surgeon*.—When relieved by Surgeon Austin, to proceed to Baltimore, Md., and assume charge of the service at that port, March 4, 1882.

FESSENDEN, C. S. D., *Surgeon*.—To proceed to Greenport and Sag Harbor, N. Y., as Inspector, January 26, 1882. Detailed as President of Board of Survey for the physical examination of pilots, to meet at Boston, Mass., February 16, 1882.—February 7, 1882.

PURVIANCE, GEORGE, *Surgeon*.—To proceed to Gloucester, Mass., to extend relief to shipwrecked seamen, January 12, 1882. Detailed as Recorder of Board of Survey for the physical examination of pilots, to meet at Boston, Mass., February 16, 1882.—February 7, 1882.

AUSTIN, H. W., *Surgeon*.—To proceed to Cincinnati, O., and assume charge of the service at that port, relieving Surgeon Wyman, March 4, 1882.

GODFREY, JOHN, *Passed Assistant Surgeon*.—When relieved by Passed Assistant Surgeon Goldsborough, to proceed to New Orleans, La., and assume charge of the service at that port, March 4, 1882.

GOLDSBOROUGH, C. B., *Passed Assistant Surgeon*.—When relieved by Surgeon Wyman, to proceed to Mobile, Ala., and assume charge of the service at that port, March 4, 1882. Granted leave of absence for eight days, March 24, 1882.

IRWIN, FAIRFAX, *Assistant Surgeon*.—Granted leave of absence for seven days, January 18, 1882.

O'CONNOR, F. J., *Assistant Surgeon*.—To report to General Superintendent, L.S.S., for duty as member of Board to examine keepers and crews of the Life-saving Service, January 4, 1882. Relieved on account of sickness, and directed to report to Surgeon-in-charge, New York, N. Y., for temporary duty, January 18, 1882. To proceed to Detroit, Mich., and report for duty to the Surgeon-in-charge, February 9, 1882.

BANKS, C. E., *Assistant Surgeon*.—To proceed to Portland, Oregon, and assume charge of the service at that port, March 1, 1882.

DEVAN, S. C., *Assistant Surgeon*.—Detailed as Recorder of Board of Survey for the physical examination of officers of the Revenue Marine Service, March 18, 1882.

URQUHART, F. M., *Assistant Surgeon*.—To report to General Superintendent, L.S.S., for duty as member of Board to examine keepers and crews of the Life-saving Service, January 18, 1882.

KALLOCH, P. C., *Assistant Surgeon*.—To proceed to New York, N. Y., for temporary duty, January 24, 1882.

## RESIGNATION.

HEBERSMITH, ERNEST.—Resignation as Surgeon accepted, to take effect November 26, 1881.—January 17, 1882.

## PROMOTION.

SMITH, HENRY, *Surgeon*.—Promoted and appointed Surgeon from January 20, 1882.—January 20, 1882.

## APPOINTMENT.

KALLOCH, PARKER C., M.D., of Pennsylvania, having passed successfully the examination required by the Regulations, was appointed an Assistant Surgeon by the Secretary of the Treasury, January 23, 1882.

THE MEDICAL NEWS will be pleased to receive early intelligence of local events of general medical interest, or which it is desirable to bring to the notice of the profession.

Local papers containing reports or news items should be marked. Letters, whether written for publication or private information, must be authenticated by the names and addresses of their writers—of course not necessarily for publication.

All communications relating to the editorial department of the NEWS should be addressed to No. 1004 Walnut Street, Philadelphia.